

Exhibit 1



STATE OF NEW YORK
EXECUTIVE CHAMBER
ALBANY 12224

DAVID A. PATERSON
GOVERNOR

May 5, 2010

Dear New Yorkers:

In 2006, the New York State Department of Economic Development commissioned a study, as required by Executive Law § 312-a, to determine "whether there is a disparity between the number of qualified minority and women-owned businesses ready, willing and able to perform state contracts for commodities, services and construction, and the number of such contractors actually engaged to perform such contracts, and to determine what changes, if any, should be made to state policies affecting minority and women-owned business enterprises."

In accordance with that statute, NERA Economic Consulting performed an extensive statistical analysis and survey of anecdotal evidence concerning the place of minority and women's business enterprises (MWBEs) in the New York market, including state contracting. The study concludes that MWBEs are present in substantially lower numbers and were substantially more likely to be denied access to credit than would have been the case if the market operated in a race and gender neutral manner. It further found that during the period April 2004 to March 2008, MWBEs were utilized in state contracting at rates far lower than their availability would indicate. The authors of the study determined that the statistical and anecdotal evidence support the conclusion that these outcomes are the result of discrimination.

In short, the study powerfully demonstrates the need for a robust New York State program to ensure a level playing field for MWBEs.

Since becoming Governor, and indeed even before, I have pledged to usher in a new era of equal opportunity in contracting for minority and women owned businesses. This study provides the factual foundation upon which to build a comprehensive program to advance that goal. I am committed to working with the Legislature towards putting such a program in place this legislative session.

Very truly yours,

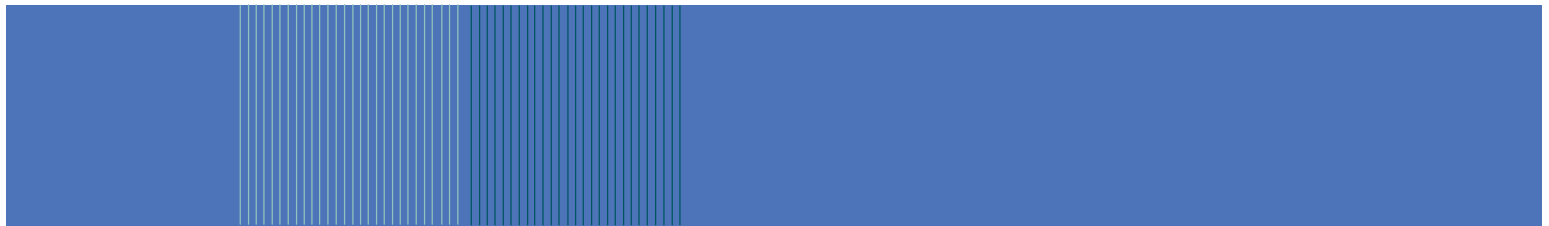
David A. Paterson

David A. Paterson

April 29, 2010

The State of Minority- and Woman-Owned Business Enterprise: Evidence from New York

Prepared for the New York State Department of Economic
Development



NERA
Economic Consulting

Project Team

Jon Wainwright, Ph.D., Vice President, NERA

Colette Holt, J.D., Colette Holt & Associates

Kim Stewart, M.S., Research Analyst, NERA

J. Wesley Stewart, A.A., Research Assistant, NERA

Abt SRBI, Inc.

J&D Data Services

RMBDC, Inc.

Spectrum Personal Communications Corporation

Acknowledgments

This Study would not have been possible without the assistance of personnel throughout New York State government, especially at the Department of Economic Development. Special thanks go to the State's project manager for this study, Jeff Metzler, Vice President for Economic Empowerment, Empire State Development Corporation.

NERA Economic Consulting
1006 East 39th St.
Austin, Texas 78751
Tel: +1 512 371 8995
Fax: +1 512 371 9612
www.nera.com

About the Project Team—NERA Economic Consulting

NERA Economic Consulting is a global firm of experts dedicated to applying economic, finance, and quantitative principles to complex business and legal challenges. For half a century, NERA's economists have been creating strategies, studies, reports, expert testimony, and policy recommendations for government authorities and the world's leading law firms and corporations. We bring academic rigor, objectivity, and real world industry experience to bear on issues arising from competition, regulation, public policy, strategy, finance, and litigation.

NERA's clients value our ability to apply and communicate state-of-the-art approaches clearly and convincingly, our commitment to deliver unbiased findings, and our reputation for quality and independence. Our clients rely on the integrity and skills of our unparalleled team of economists and other experts backed by the resources and reliability of one of the world's largest economic consultancies. With its main office in New York City, NERA serves clients from over 20 offices across North America, Europe, and Asia Pacific.

NERA's employment and labor experts advise clients on a wide range of issues both inside and outside the courtroom. We have provided expert testimony on statistical issues both at the class certification phase (on issues of commonality and typicality) and at the liability phase (for class or pattern-and-practice cases). Our experts have extensive experience examining issues of statistical liability in discrimination and other wrongful termination claims. We also provide detailed statistical analyses of workforce composition to identify potential disparities in hiring, layoffs, promotions, pay, and performance assessments and have conducted studies on labor union issues and on affirmative action programs for historically disadvantaged business enterprises.

NERA Vice President Dr. Jon Wainwright led the NERA project team for this Study. Dr. Wainwright heads NERA's disparity study practice and is a nationally recognized expert on business discrimination and affirmative action. He has authored books, papers, and numerous research studies on the subject, and has been repeatedly qualified to testify on these and other issues as an expert in state and federal courts. At NERA, Dr. Wainwright directs and conducts economic and statistical studies of discrimination for attorneys, corporations, governments, and non-profit organizations. He also directs and conducts research and provides clients with advice on adverse impact and economic damage matters arising from their hiring, performance assessment, compensation, promotion, termination, or contracting activities.

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Fax: +1 512 371 9612
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About the Project Team—NERA Research Partners

Colette Holt & Associates is a Chicago-based law practice specializing in public sector affirmative action programs. The firm provides legal and consulting services to governments and businesses relating to procurement and contracting; employment discrimination; regulatory compliance; organizational change; program development, evaluation and implementation; and issues relating to inclusion, diversity and affirmative action. Colette Holt, J.D. is a nationally recognized expert in designing and implementing legally defensible affirmative action programs and is a frequent author and media commentator in this area. On this Study, Colette Holt served as legal counsel for NERA, providing advice and recommendations for the study's design and implementation, conducting interviews with business owners and state procurement officials, and drafting key study findings, among other duties.

Abt SRBI is a New York-based business with a national reputation for excellence in computer assisted telephone interviewing. Abt SRBI provides analysis in the rapidly evolving markets and public policy areas of communications, financial services, utilities, transportation, media, health and business services. The firm was founded in 1981 with the explicit purpose of combining high quality analytic capabilities with in-house control of the research implementation to ensure accurate, timely and actionable research use by decision makers working in rapidly changing environments. Abt SRBI clients include the Eagleton Institute at Rutgers, the Annenberg Institute at the University of Pennsylvania, and the major networks. Abt SRBI has conducted numerous surveys of M/WBEs and non-M/WBEs on behalf of the NERA team. On this Study, Abt SRBI conducted telephone surveys of race and gender misclassification and of mail survey non-response under the supervision of Abt SRBI Project Manager Andrew Evans.

J&D Data Services is a small business enterprise owned by Mr. Joe Deegan and based in Plano, Texas. After a long career with ScanTron, Mr. Deegan started his own business to offer a solid and proven alternative to the time consuming and expensive job of key data entry long associated with mail surveys. The firm helps its clients conserve their surveying resources by designing and delivering survey instruments that can be electronically and automatically scanned upon return and sent directly to electronic format. J&D Data Services has conducted numerous surveys of M/WBEs and non-M/WBEs on behalf of the NERA team. On this assignment they provided printing, postage, mail-out and mail-back service for the subcontract data collection, the mail survey, and the business owner interview invitations.

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Fax: +1 512 371 9612
www.nera.com

About the Project Team—NERA Research Partners

RMBDC, Inc. is a small business with offices in Rochester and Albany. The firm's primary focus is the design and implementation of programs and services that provide meaningful economic participation for enterprises owned by minorities and women in public and private sectors. RMBDC is certified as a M/WBE and DBE with New York State and the NYS Dormitory Authority and is also a certified SBA 8(a) business. Previous clients include the City of Rochester, Dormitory Authority of the State of New York, and the New York State Department of Transportation. On this assignment RMBDC provided outreach and support to populate the business owner interview sessions in Albany, Rochester, and Buffalo.

Spectrum Personal Communications Corp. is a small business founded in 1994 as a diversified business consulting firm and is located in New York City. The firm is a certified MBE with the State of New York, New York City, New York City School Construction Authority, the Port Authority of NY and NJ, and the Metropolitan Transit Authority. CEO Mark O'Luck has over 20 years experience as a consultant to major corporations and governments. Mr. O'Luck is a graduate of Norfolk University and holds an Honorary Doctor of Law degree from St. Joseph's College. Spectrum offers its clients advisory, development, implementation and support services on a wide array of business topics including Local/Small/Disadvantaged/Minority/Women-Owned business consulting services. On this assignment, Spectrum provided outreach and support to populate the business owner interview sessions in New York City, Long Island, and Westchester.

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Austin, Texas 78751
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Fax: +1 512 371 9612
www.nera.com

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Executive Summary

A. Introduction

Executive Law § 312-a authorizes and directs the Department of Economic Development to commission a statewide disparity study regarding the participation of minority and women-owned business enterprises in state contracts. Pursuant to this law, NERA was commissioned by the Department to examine the past and current status of minority-owned and women-owned business enterprises (“M/WBEs”) in the geographic and product markets for contracting and procurement of the State of New York (hereinafter “the State” or “NYS”). The purpose of this Study is to assist the State in evaluating whether its current program to assist minority-owned and women-owned business enterprises M/WBEs is still necessary to remedy discrimination, and to narrowly tailor existing and any new measures that may be adopted.

The results of NERA’s Study (hereinafter the “2010 Study”), provide the evidentiary record necessary for the State’s consideration of whether to implement renewed M/WBE policies that comply with the requirements of the courts and to assess the extent to which previous efforts have assisted M/WBEs to participate on a fair basis in the State’s contracting and procurement activity. *The 2010 Study finds both statistical and anecdotal evidence of business discrimination against M/WBEs in the State’s relevant market area.*

B. Legal Standards for Government Affirmative Action Contracting Programs

To be effective, enforceable, and legally defensible, a race- and gender-based program must meet the judicial test of constitutional “strict scrutiny.” Strict scrutiny requires current “strong evidence” of the persistence of discrimination, and any remedies adopted must be “narrowly tailored” to that discrimination. Applying these terms to government affirmative action contracting programs is complex and constantly shifting, and cases are quite fact specific. Over the last 21 years, federal appellate and district courts have developed parameters for establishing a state government’s compelling interest in remedying discrimination and evaluating whether the remedies adopted to address that discrimination are narrowly tailored. The 2010 Study follows the guidelines developed by the National Academy of Sciences, which our team was proud to develop.¹

Chapter II of the Study provides a detailed and up-to-date overview of current constitutional standards and case law and outlines the legal and program development issues New York must consider in evaluating its M/WBE Program and any future initiatives, with emphasis on critical issues and evidentiary concerns.

¹ Wainwright, J. and C. Holt (2010), *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*, Transportation Research Board of the National Academies, NCHRP Report, Issue No. 644.

C. Defining the Relevant Markets

Chapter III describes how the relevant geographic and product markets were defined for this Study. Five years of prime contract and subcontract records were analyzed to determine the geographic radius around NYS that accounts for at least 75 percent of aggregate contract and subcontract spending. These records were also analyzed to determine those detailed industry categories that collectively account for over 99 percent of contract and subcontract spending in excess of \$50,000 in the relevant procurement categories, which were Construction, Construction-Related Professional Services (“CRS”) such as architectural, engineering, surveying, and testing services, Other Professional and General Services (“Services”), and Commodities, Supplies and Equipment (“Commodities”).² The State’s relevant geographic market area was determined to be the State of New York plus the balance of the New York-Northern New Jersey-Long Island Consolidated Metropolitan Statistical Area.

The relevant geographic and product markets were then used to focus and frame the quantitative and qualitative analyses in the remainder of the Study.

D. M/WBE Availability in the State’s Market Area

Chapter IV estimates the percentage of firms in the State’s relevant market area that are owned by minorities and/or women. For each industry category, M/WBE availability is defined as the number of M/WBEs divided by the total number of businesses in the State’s contracting market area. Determining the total number of businesses in the relevant markets is more straightforward than determining the number of minority-owned or women-owned businesses in those markets. The latter task has three main parts: (1) identifying all listed M/WBEs in the relevant market; (2) verifying the ownership status of listed M/WBEs; and (3) estimating the number of unlisted M/WBEs in the relevant market.

Table A below provides an executive level summary of the current M/WBE availability estimates derived in the Study.

² For construction contracts, the minimum threshold was \$100,000.

Table A. Overall Current Availability—By Major Procurement Category and Overall

Detailed Industry	African-American (%)	Hispanic (%)	Asian (%)	Native American (%)	MBE (%)	Non-minority Female (%)	M/WBE (%)	Non-M/WBE (%)
CONSTRUCTION	4.00	6.94	3.18	0.21	14.33	8.41	22.74	77.26
CRS	3.19	4.66	4.46	0.90	13.21	11.32	24.53	75.47
SERVICES	3.50	4.19	11.56	0.35	19.60	17.44	37.04	62.96
COMMODITIES	3.66	4.64	7.45	0.37	16.12	10.93	27.05	72.95
TOTAL	3.71	5.41	7.08	0.33	16.53	12.39	28.92	71.08

Source: Table 4.17.

Notes: For this study, “Black” or “African American” refers to a person having origins in any of the Black African racial groups; “Hispanic” refers to a person of Mexican, Puerto Rican, Dominican, Cuban, Central or South American, of either Indian or Hispanic origin, regardless of race; “Asian and Pacific Islander” or “Asian” refers to a person having origins in any of the Far East countries, South East Asia, the Indian Subcontinent, or the Pacific Islands; “Native American” refers to a person having origins in any of the original peoples of North America; and “White” or “non-minority” means a non-Hispanic person having origins in Europe, North Africa, or the Middle East.

E. Statistical Disparities in Minority and Female Business Formation and Business Owner Earnings

Chapter V demonstrates that **current M/WBE availability levels in the New York State market area, as measured in Chapter IV, are substantially lower than those that we would expect to observe if commercial markets operated in a race- and gender-neutral manner and that these levels are statistically significant.**³ In other words, minorities and women are substantially and significantly less likely to own their own businesses as the result of marketplace discrimination than would be expected based upon their observable characteristics, including age, education, geographic location, and industry. We find that these groups also suffer substantial and significant earnings disadvantages relative to comparable non-minority males, whether they work as employees or entrepreneurs.

In particular, we found that annual average wages for African-Americans (both sexes) in 2006–2008, were 25 percent lower in the New York State market area than for non-minority males who were otherwise similar in terms of geographic location, industry, age, and education. These differences are large and statistically significant. Large, adverse, and statistically significant wage disparities were also observed for Hispanics, Asians, Native Americans, persons of mixed race, and non-minority women. These disparities are consistent with the presence of market-wide discrimination. Observed disparities for these groups ranged from a low of -23 percent for Hispanics to a high of -33 percent for non-minority women. Similar results were observed when the analysis was restricted to the Construction and CRS sector. That is, large, adverse, and

³ Typically, for a given disparity statistic to be considered “statistically significant” there must be a substantial probability that the value of that statistic is unlikely to be due to chance alone. *See also fn.* 182

statistically significant wage disparities were observed for all minority groups and for non-minority women. All wage and salary disparity analyses were then repeated to test whether observed disparities in the New York State market area were different enough from elsewhere in the country or the economy to alter any of the basic conclusions regarding wage and salary disparity. They were not.

This analysis demonstrates that minorities and women earn substantially and significantly less than their non-minority male counterparts. Such disparities are symptoms of discrimination in the labor force that, in addition to its direct effect on workers, reduce the future availability of M/WBEs by stifling opportunities for minorities and women to progress through precisely those internal labor markets and occupational hierarchies that are most likely to lead to entrepreneurial opportunities. These disparities reflect more than mere “societal discrimination” because they demonstrate the nexus between discrimination in the job market and reduced entrepreneurial opportunities for minorities and women. Other things equal, these reduced entrepreneurial opportunities in turn lead to lower M/WBE availability levels than would be observed in a race- and gender-neutral marketplace.

Next, we analyzed race and sex disparities in business owner earnings. We observed large, adverse, and statistically significant business owner earnings disparities for African-Americans, Hispanics, Asians, Native Americans, and non-minority women consistent with the presence of discrimination in these markets. Large, adverse, and statistically significant business owner earnings disparities were observed overall as well as in the Construction and CRS sector. As with the wage and salary disparity analysis, we enhanced our basic statistical model to test whether minority and female business owners in the New York State market area differed significantly enough from business owners elsewhere in the U.S. economy to alter any of our basic conclusions regarding disparity. They did not.

As was the case for wage and salary earners, minority and female entrepreneurs earned substantially and significantly less from their efforts than similarly situated non-minority male entrepreneurs. These disparities are a symptom of discrimination in commercial markets that directly and adversely affects M/WBEs. Other things equal, if minorities and women cannot earn remuneration from their entrepreneurial efforts comparable to that of non-minority males, growth rates will slow, business failure rates will increase, and as demonstrated in this Chapter, business formation rates will decrease. Combined, these phenomena result in lower M/WBE availability levels than would otherwise be observed in a race- and gender-neutral marketplace.

Next, we analyzed race and gender disparities in business formation. As with earnings, in almost every case we observed large, adverse, and statistically significant disparities consistent with the presence of discrimination in these markets in the overall economy, in the Construction and CRS sector, and in the Services & Commodities sector.⁴ In almost every instance, business formation rates for African-Americans, Hispanics, Asians, Native Americans, and females were substantially and statistically significantly lower than the corresponding non-minority male business formation rate.

⁴ The Construction and CRS sectors were combined for the analyses in Chapter V, as were the Services & Commodities sector. Elsewhere in the study they are analyzed separately

Finally, as a further check on the statistical findings in this Chapter, we examined evidence from the Census Bureau's *Survey of Business Owners and Self-Employed Persons* (SBO).⁵ These data show large, adverse, and statistically significant disparities between M/WBEs' share of overall revenues and their share of overall firms in the U.S. as a whole, and in the states of New York, New Jersey, and Connecticut. The size of the disparities facing minority and female-owned firms in these three states is striking. For example, although 6.65 percent of all firms in these three states are owned by African Americans, they earn barely 1.0 percent of all sales and receipts. African-American employer firms are 1.9 percent of the total but earn only 0.8 percent of sales and receipts. Disparities for women and for other minority groups are also very large in these three states.

F. Statistical Disparities in Credit/Capital Markets

In Chapter VI, we analyzed current and historical data from the Survey of Small Business Finances, conducted by the Federal Reserve Board and the U.S. Small Business Administration, along with data from nine customized matching mail surveys we have conducted throughout the nation since 1999. This data examines whether discrimination exists in the small business credit market. Credit market discrimination can have an important effect on the likelihood that M/WBEs will succeed. Moreover, discrimination in the credit market might even prevent such businesses from opening in the first place. This analysis has been held by the courts to be probative of a public entity's compelling interest in remedying discrimination. We provide qualitative and quantitative evidence supporting the view that M/WBE firms, particularly African-American-owned firms, suffer discrimination in this market.

The results are as follows:

- Minority-owned firms were particularly likely to report that they did not apply for a loan over the preceding three years because they feared the loan would be denied.
- When minority-owned firms did apply for a loan, their requests were substantially more likely to be denied than other groups, even after accounting for differences in factors like size and credit history.
- When minority-owned firms did receive a loan, they paid higher interest rates than comparable non-minority-owned firms.
- Far more minority-owned firms report that credit market conditions are a serious concern than is the case for non-minority-owned firms.
- A greater share of minority-owned firms believes that the availability of credit is the most important issue likely to confront the firm in the next 12 months.
- Judging from the analysis done using data from the SSBF, there is no reason to believe that evidence of discrimination in the market for credit is different in the New

⁵ Formerly known as the *Survey of Minority- and Women-Owned Business Enterprises* (SMWOBE).

York market area than in the nation as a whole. The evidence from NERA's own credit surveys in a variety of states and metropolitan areas across the country is entirely consistent with the results from the SSBF.

We conclude that there is evidence of discrimination against M/WBEs in the New York State market area in the small business credit market. This discrimination is particularly acute for African-American-owned firms.

G. M/WBE Public Sector Utilization vs. Availability in the State's Contracting and Procurement Markets, FY 2004–2008

Chapter VII analyzes the extent to which M/WBEs were utilized by NYS between SFY 2004-2008 and compares this utilization rate to the availability of M/WBEs in the relevant market area.

Table B provides an executive level summary of utilization findings for the 2010 Study by industry category and M/WBE type.

Table B. M/WBE Utilization in NYS Contracting and Procurement, 2004-2008

M/WBE Type	Procurement Category				
	Construction (%)	CRS (%)	Services (%)	Commodities (%)	Overall (%)
African-American	2.51	0.93	0.15	0.05	0.70
Hispanic	2.65	3.73	0.11	0.04	0.81
Asian	2.56	10.61	0.39	0.04	1.13
Native American	0.86	0.14	0.00	0.00	0.21
MBE	8.59	15.41	0.65	0.12	2.85
Non-minority Females	3.80	4.02	2.18	0.63	2.18
M/WBE Total	12.39	19.43	2.83	0.75	5.03
Non-M/WBE Total	87.61	80.57	97.17	99.25	94.97
Total (%)	100.00	100.00	100.00	100.00	100.00
Total (\$)	7,901,356,795	1,067,335,628	14,703,277,248	9,620,367,432	33,297,297,342

Source: Table 7.1

Next we compared the State's and its prime contractors' use of or collaboration with M/WBEs to our measure of M/WBE availability levels in the relevant marketplaces. If M/WBE utilization is statistically significantly lower than measured availability in a given category we report this result as a disparity.

Table C provides a top-level summary of our disparity findings for the 2010 Study for Construction, CRS, Services, and Commodities. **We find significant evidence of disparity in the State's contracting and procurement activity, despite the operation of the M/WBE Program.**

Table C. Disparity Results for NYS Contracting, Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization (%)	Availability (%)	Disparity Ratio
Construction			
Black	2.51	4.00	62.72
Hispanic	2.65	6.94	38.18 **
Asian	2.56	3.18	80.60
Native	0.86	0.21	
Minority-owned	8.59	14.34	59.91 **
White female	3.80	8.41	45.23 **
M/WBE total	12.39	22.74	54.48 **
CRS			
Black	0.93	3.19	29.24
Hispanic	3.73	4.66	80.08
Asian	10.61	4.46	
Native	0.14	0.90	15.07
Minority-owned	15.41	13.21	
Non-minority female	4.02	11.32	35.54 **
M/WBE total	19.43	24.53	79.21
Services			
Black	0.15	3.50	4.17
Hispanic	0.11	4.19	2.70
Asian	0.39	11.56	3.35
Native	0.00	0.35	0.36
Minority-owned	0.65	19.60	3.30
Non-minority female	2.18	17.44	12.5
M/WBE total	2.83	37.04	7.63
Commodities			
Black	0.05	3.66	1.25
Hispanic	0.04	4.64	0.76
Asian	0.04	7.45	0.58 **
Native	0.00	0.37	0.00
Minority-owned	0.12	16.11	0.77 **
Non-minority female	0.63	10.93	5.73 **
M/WBE total	0.75	27.05	2.77 **
All Procurement			
Black	0.70	3.71	18.96
Hispanic	0.81	5.41	14.96
Asian	1.13	7.08	15.98
Native	0.21	0.33	63.05
Minority-owned	2.85	16.53	17.27 *
Non-minority female	2.18	12.39	17.58
M/WBE total	5.03	28.92	17.40 **

Source: Table 7.10.

Note: “*” indicates an adverse disparity that is statistically significant at the 10% level or better. “**” indicates the disparity is significant at a 5% level or better. “***” indicates significance at a 1% level or better. An empty cell in the Disparity ratio column indicates that no adverse disparity was observed for that category.

Finally, Chapter VII compares current levels of M/WBE availability for NYS with what we would expect to observe in a race- and gender-neutral marketplace. If there is perfect parity in the relevant marketplace, then the expected M/WBE availability rate (that is, the M/WBE availability level that would be observed in a non-discriminatory marketplace) will be equal to the actual current M/WBE availability rate, because the disparity ratio will equal 100. If there are adverse disparities facing M/WBEs in the relevant market area, however, as documented in Chapters V, VI, VII, and VIII of this Study, then expected availability will *exceed* actual current availability, because the disparity ratio is less than 100. Expected availability percentages for the State's overall contracting and by major procurement category are presented below in Table D. Expected availability exceeds actual current availability in all but two cases.

Table D. Expected Availability and Actual Current Availability, Overall and By Major Procurement Category

Procurement Category	M/WBE Type	Current Availability (%)	Expected Availability (%)
All	African-American:	3.71	7.03
	Hispanic	5.41	7.41
	Asian	7.08	8.02
	Native American	0.33	0.43
	Minority total	16.53	25.08
	Non-minority female	12.39	17.21
	M/WBE total	28.92	42.16
Construction	African-American:	4.00	6.21
	Hispanic	6.94	10.64
	Asian	3.18	4.31
	Native American	0.21	0.30
	Minority total	14.34	21.76
	Non-minority female	8.41	14.88
	M/WBE total	22.74	35.98
CRS	African-American:	3.19	4.95
	Hispanic	4.66	7.15
	Asian	4.46	6.05
	Native American	0.90	1.29
	Minority total	13.21	20.05
	Non-minority female	11.32	20.04
	M/WBE total	24.53	38.81
Services	African-American:	3.50	7.35
	Hispanic	4.19	5.88
	Asian	11.56	13.47
	Native American	0.35	0.48
	Minority total	19.60	27.76
	Non-minority female	17.44	0.00
	M/WBE total	37.04	52.39
Commodities	African-American:	3.66	7.69
	Hispanic	4.64	6.52
	Asian	7.45	8.68
	Native American	0.37	0.51
	Minority total	16.11	22.82
	Non-minority female	10.93	0.00
	M/WBE total	27.05	38.26

Source: Table 7.30.

H. Anecdotal Evidence

Chapter VIII presents the results of a large scale mail survey we conducted of M/WBEs and non-M/WBEs about their experiences and difficulties in obtaining contracts. The survey quantified and compared anecdotal evidence on the experiences of M/WBEs and non-M/WBEs as a method to examine whether any differences might be due to discrimination.

We found that M/WBEs that have been hired in the past by non-M/WBE prime contractors to work on public sector contracts with M/WBE goals are rarely hired—or even solicited—by these prime contractors to work on projects without M/WBE goals. The relative lack of M/WBE hiring and, moreover, the relative lack of solicitation of M/WBEs in the absence of affirmative efforts by NYS and other public entities in the New York State market area shows that business discrimination continues to fetter M/WBE business opportunities in the State’s relevant markets.

We found that M/WBEs in the State’s market area report suffering business-related discrimination in large numbers and with statistically significantly greater frequency than non-M/WBEs. These differences remain statistically significant when firm size and other “capacity-related” owner characteristics are held constant. We also find that M/WBEs in these markets are more likely than similarly situated non-M/WBEs to report that specific aspects of the regular business environment make it harder for them to conduct their businesses, less likely than similarly situated non-M/WBEs to report that specific aspects of the regular business environment make it easier for them to conduct their businesses.

We conclude that the statistical evidence presented in this report is consistent with these anecdotal accounts of contemporary business discrimination.

Chapter VIII also presents the results from a series of in-depth personal interviews conducted with M/WBE and non-M/WBE business owners in the New York State market area. Similar to the survey responses, the interviews strongly suggest that M/WBEs continue to suffer discriminatory barriers to full and fair access to NYS, other public sector, and private sector contracts. Participants reported stereotyping, perceptions of M/WBE incompetence and being subject to higher performance standards; exclusion from industry networks; jobsite harassment; discrimination in access to commercial loans; inability to obtain public sector prime contracts; difficulties in receiving fair treatment in obtaining public sector subcontracts; and virtual exclusion from private sector opportunities to perform as either prime contractors as subcontractors.

While not definitive proof that NYS has a compelling interest in implementing race- and gender-conscious remedies for these impediments, the results of the surveys and the personal interviews are the types of anecdotal evidence that, especially in conjunction with the Study’s extensive statistical evidence, the courts have found to be highly probative of whether, without affirmative interventions, NYS would be a passive participant in a discriminatory local marketplace. It is also highly relevant for narrowly tailoring any M/WBE goals for its state- funded contracts.

I. M/WBE Program Overview and Feedback Interviews

Chapter IX provides an overview of the State's M/WBE Program and a discussion of the operations of the current efforts. We interviewed hundreds of business owners throughout the State to solicit their feedback regarding these Programs.

Chapter IX presents a summary of our interviews, which covered the following subjects:

- **M/WBE certification**

In general, minorities and women reported that race- and gender-conscious contracting programs are needed to ensure full and fair access to government contracts. Being certified created opportunities that otherwise would not have presented themselves. Several firms, both M/WBEs and non-M/WBEs, expressed concerns about "front" firms, that is, enterprises that were not legitimately minority- or woman-owned, managed and controlled.

- **Access to information**

Smaller and new firms found it very difficult to access information on upcoming opportunities or to contact the appropriate State personnel.

- **Supportive Services Programs**

More supportive services were repeatedly cited as a critical need by M/WBEs and prime contractors. These ranged from technical assistance with preparing bids to bonding and financing programs to more "matchmaking" sessions with State buyers and prime vendors.

- **Contract specifications**

Contract size was a recurring objection by M/WBEs and small non-certified firms. Some owners felt that the State has a mindset that bigger is better and always more qualified. There was significant support for a small business set-aside or target market, that would restrict bidding to small, New York-based firms.

- **Meeting M/WBE goals**

Many M/WBEs believed that compliance with Program requirements was inadequate. Many M/WBEs doubted that prime vendors had real commitment to inclusion. However, whatever the failings of the implementation of the goal setting process, most M/WBEs believed goals were essential to creating opportunities for them to participate on State contracts. M/WBEs who were fortunate enough to obtain prime contracts stated that they should be allowed to count their self-performance towards the goal for which they qualify, as in the USDOT's Disadvantaged Business Enterprise Program.

Many prime vendors expressed frustration with the capabilities of certified firms and the overall process of meeting goals. Some prime contractors reported using brokers to meet the goals. Several prime contractors stated that they received little assistance from the agencies in trying to meet the goals, which were often perceived as arbitrary. Differing approaches to goal setting and

review of good faith efforts between State agencies creates confusion and uncertainty. Bidders or proposers that failed to meet the goals sometimes sought waivers, but more often submitted and tried to attain the goals during contract performance. Some prime vendors suggested that the program be eliminated and replaced with efforts focused solely on increasing the quality of M/WBEs, without reference to goals or actual utilization. There was much support for refocusing the program on a firm's employment of minorities and women rather than developing business ownership. Some non-M/WBEs stated that many certified firms no longer suffer any competitive disadvantage. In some sub-industries like land surveying, non-certified firm owners reported that they have been shut out of State subcontracts because these areas have plentiful M/WBE availability and prime contractors meet goals in those areas.

- **Contract performance monitoring**

Numerous concerns were raised about how New York monitors Program compliance during contract performance.

- **Payment**

Payment was a universal problem. Smaller firms, including most M/WBEs, found slow pay to be a major barrier to participating on State contracts as either a prime vendor or a subcontractor.

J. Conclusion

As summarized above, and based on the detailed findings below, we conclude that there is strong evidence of large, adverse, and frequently statistically significant disparities between minority and female participation in business enterprise activity in New York State's relevant market area and the actual current availability of those businesses. We further conclude that these disparities cannot be explained solely, or even mostly, by differences between M/WBE and non-M/WBE business populations in factors untainted by discrimination, and that these differences therefore give rise to a strong inference of the presence of discrimination.

I. Introduction

The Empire State Development Corporation of the State of New York commissioned this study, pursuant to Executive Law 312-a, to evaluate whether M/WBEs in the State of New York's contracting marketplace have full and fair opportunities to compete for its prime contracts and associated subcontracts. The Study was commissioned in conformance with the statutory mandate to conduct a disparity study, adopted by the legislature in 2006, and will assist the State in evaluating whether its current M/WBE initiatives are still necessary to remedy discrimination, and to narrowly tailor existing and new measures.

Like many state governments, NYS has a long record of commitment to including M/WBEs in its contracting and procurement activities. As will be documented in this Study, from state fiscal years 2004 through 2008 NYS has continued to be a source of demand in the regional economy for the products and services provided by M/WBEs—demand that, in general, is found to be lacking in the private sector of the regional economy.

As documented below in Chapter VII, New York's prior efforts have produced some positive results—M/WBEs earned approximately 5 percent of New York's contracting and purchasing dollars from state fiscal year ("SFY") 2004 through SFY 2008. The courts have made it clear, however, that in order to implement a race- and gender-based program that is effective, enforceable and legally defensible, the State must meet the judicial test of constitutional "strict scrutiny" to determine the legality of such initiatives. Strict scrutiny requires current "strong evidence" of the persistence of discrimination, and "narrowly tailored" measures to remedy that discrimination. These legal principles guide and inform our work for New York State.

A. History of New York State's Affirmative Action Contracting Programs

NYS first adopted its M/WBE Program in 1988, Article 15-A of the Executive Law, Participation by Minority Group Members and Women with Respect to State Contracts, embodies the policy to promote equal opportunity in employment for all persons, without discrimination on account of race, creed, color, national origin, sex, age, disability or marital status, to promote equality of economic opportunity for minority group members and women, and business enterprises owned by them, and to eradicate through effective programs the barriers that have unreasonably impaired access by minority and women-owned business enterprises to state contracting opportunities.

In 1990, a federal court preliminarily enjoined New York from implementing Article 15-A until the state could provide a "strong basis in evidence for its conclusion that race-conscious remedial action was necessary."⁶ In order to save the statute, the State promulgated emergency regulations suspending its M/WBE program until it could compile evidence to show that a factual basis demonstrated a compelling state interest. In July 1992, the Division of Minority- and Women-Owned Business Development issued a formal report, *Opportunity Denied!*

⁶ *Harrison & Burrowes Bridge Constructors, Inc. v. Cuomo (Harrison & Burrowes I)*, 743 F. Supp. 977, 1001 (N.D.N.Y. 1990) (quoting *Croson*, 488 U.S. at 500).

Introduction

compiling evidence of past race discrimination in New York. On the basis of that report, New York re-issued regulations, ended the suspension, and enforced Article 15-A again.⁷

B. Study Outline

To ensure compliance with constitutional mandates and M/WBE best practices, NYS commissioned NERA to examine the past and current status of M/WBEs in the State's geographic and product markets for contracting and procurement. The results of the 2010 provide the evidentiary record necessary for the State's consideration of whether to implement renewed M/WBE policies that comply with the requirements of the courts and to assess the extent to which previous efforts have assisted M/WBEs to participate on a fair basis in the State's contracting and procurement activity.

The 2010 Study finds both statistical and anecdotal evidence of business discrimination against M/WBEs in the private sector of the New York State market area. As part of our statistical findings, we surveyed the contracting experiences and credit access experiences of M/WBEs and non-M/WBEs in the market area and conducted a series of in-depth personal interviews with local business enterprises, both M/WBE and non-M/WBE. Statistical analyses of the State's public sector contracting behavior are contained in Chapters III, IV and VII.

The Study is presented in nine chapters, and is designed to answer the following questions:

- Chapter I: Introduction
- Chapter II: What are the current constitutional standards and case law governing strict scrutiny review of race- and gender-conscious government efforts in public contracting?
- Chapter III: What is the relevant geographic market for NYS and how is it defined? What are the relevant product markets for NYS and how are they defined?
- Chapter IV: What percentage of all businesses in the State's market area are owned by minorities and/or women? How are these availability estimates constructed?
- Chapter V: Do minority and/or female wage and salary earners earn less than similarly situated non-minority males? Do minority and/or female business owners earn less from their businesses than similarly situated non-minority males? Are minorities and/or women in the NYS market area less likely to be self-employed than similarly situated non-minority males? How do the findings in the New York State market area differ from the national findings on these questions? How have these findings changed over time?

⁷ See N.Y. Comp. Codes R. & Regs. Title 9, §§ 540-544 (1992) (current version at N.Y. Comp. Codes R. & Regs. tit.5, § 140-144).

- Chapter VI: Do minorities and/or women face discrimination in the market for commercial capital and credit compared to similarly-situated non-minority males? How, if at all, do findings locally differ from findings nationally?
- Chapter VII: To what extent have M/WBEs been utilized by NYS between 2004-2008, and how does this utilization compare to the availability of M/WBEs in the relevant marketplace?
- Chapter VIII: How many M/WBEs experienced disparate treatment in the study period? What types of discriminatory experiences are most frequently encountered by M/WBEs? How do the experiences of M/WBEs differ from those of similar non-M/WBEs regarding difficulties in obtaining prime contracts and subcontracts?
- Chapter IX: What general policies and procedures govern the State's M/WBE program? What were some of the most frequently encountered comments from M/WBEs and non-M/WBEs concerning the State's contracting affirmative action programs?

In assessing these questions, we present in Chapters III through VIII a series of quantitative and qualitative analyses that compare minority and/or female outcomes to non-minority male outcomes in all of these business-related areas. The Executive Summary, above, provides a brief overview of our key findings and conclusions.

Introduction

II. Legal Standards for Government Affirmative Action Contracting Programs

A. General Overview of Strict Scrutiny

To be effective, enforceable, and legally defensible, a race- and gender-based program must meet the judicial test of constitutional “strict scrutiny.” Strict scrutiny requires current “strong evidence” of the persistence of discrimination, and any remedies adopted must be “narrowly tailored” to that discrimination.

This area of constitutional law is complex and constantly shifting, and cases are quite fact specific. Over the last 21 years, federal appellate and district courts have developed parameters for establishing a state government’s compelling interest in remedying discrimination and evaluating whether the remedies adopted to address that discrimination are narrowly tailored. The following are the legal and program development issues New York must consider in evaluating its M/WBE Program and future initiatives.

1. *City of Richmond v. J.A. Croson*

*City of Richmond v. J.A. Croson Co.*⁸ established the constitutional contours of permissible race-based public contracting programs. Reversing long established law, the Supreme Court for the first time extended the highest level of judicial examination from measures designed to limit the rights and opportunities of minorities to legislation that benefits these historic victims of discrimination. Strict scrutiny requires that a government entity prove both its “compelling interest” in remedying identified discrimination based upon “strong evidence,” and that the measures adopted to remedy that discrimination are “narrowly tailored” to that evidence. However benign the government’s motive, race is always so suspect a classification that its use must pass the highest constitutional test of “strict scrutiny.”

The Court struck down the City of Richmond’s Minority Business Enterprise Plan that required prime contractors awarded City construction contracts to subcontract at least 30 percent of the project to MBEs. A business located anywhere in the country which was at least 51 percent owned and controlled by “Black, Spanish-speaking, Oriental, Indian, Eskimo, or Aleut” citizens was eligible to participate. The Plan was adopted after a public hearing at which no direct evidence was presented that the City had discriminated on the basis of race in awarding contracts or that its prime contractors had discriminated against minority subcontractors. The only evidence before the City Council was: (a) Richmond’s population was 50 percent Black, yet less than one percent of its prime construction contracts had been awarded to minority businesses; (b) local contractors’ associations were virtually all White; (c) the City Attorney’s opinion that the Plan was constitutional; and (d) general statements describing widespread racial discrimination in the local, Virginia, and national construction industries.

⁸ 488 U.S. 469 (1989).

In affirming the court of appeals' determination that the Plan was unconstitutional, Justice Sandra Day O'Connor's plurality opinion rejected the extreme positions that local governments either have *carte blanche* to enact race-based legislation or must prove their own illegal conduct:

[A] state or local subdivision...has the authority to eradicate the effects of private discrimination within its own legislative jurisdiction.... [Richmond] can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment.... [I]f the City could show that it had essentially become a "passive participant" in a system of racial exclusion...[it] could take affirmative steps to dismantle such a system.⁹

Strict scrutiny of race-based remedies is required to determine whether racial classifications are in fact motivated by either notions of racial inferiority or blatant racial politics. This highest level of judicial review "smokes out" illegitimate uses of race by assuring that the legislative body is pursuing a goal important enough to warrant use of a highly suspect tool.¹⁰ It further ensures that the means chosen "fit" this compelling goal so closely that there is little or no possibility that the motive for the classification was illegitimate racial prejudice or stereotype. The Court made clear that strict scrutiny seeks to expose racial stigma; racial classifications are said to create racial hostility if they are based on notions of racial inferiority.¹¹

Race is so suspect a basis for government action that more than "societal" discrimination is required to restrain racial stereotyping or pandering. The Court provided no definition of "societal" discrimination or any guidance about how to recognize the ongoing realities of history and culture in evaluating race-conscious programs. The Court simply asserted that

[w]hile there is no doubt that the sorry history of both private and public discrimination in this country has contributed to a lack of opportunities for black entrepreneurs, this observation, standing alone, cannot justify a rigid racial quota in the awarding of public contracts in Richmond, Virginia.... [A]n amorphous claim that there has been past discrimination in a particular industry cannot justify the use of an unyielding racial quota. It is sheer speculation how many minority firms there would be in Richmond absent past societal discrimination.¹²

Richmond's evidence was found to be lacking in every respect. The City could not rely upon the disparity between its utilization of MBE prime contractors and Richmond's minority population because not all minority persons would be qualified to perform construction projects; general population representation is irrelevant. No data were presented about the availability of MBEs in

⁹ *Id.* at 491-92.

¹⁰ See also *Grutter v. Bollinger*, 539 U.S. 306, 327 (2003) ("Not every decision influenced by race is equally objectionable, and strict scrutiny is designed to provide a framework for carefully examining the importance and the sincerity of the reasons advanced by the governmental decision maker for the use of race in that particular context.").

¹¹ 488 U.S. at 493.

¹² *Id.* at 499.

either the relevant marketplace or their utilization as subcontractors on City projects. According to Justice O'Connor, the extremely low MBE membership in local contractors' associations could be explained by "societal" discrimination or perhaps Blacks' lack of interest in participating as business owners in the construction industry. To be relevant, the City would have to demonstrate statistical disparities between eligible MBEs and actual membership in trade or professional groups. Further, Richmond presented no evidence concerning enforcement of its own anti-discrimination ordinance. Finally, Richmond could not rely upon Congress' determination that there has been nationwide discrimination in the construction industry. Congress recognized that the scope of the problem varies from market to market, and in any event it was exercising its powers under Section Five of the Fourteenth Amendment, whereas a local government is further constrained by the Amendment's Equal Protection Clause.¹³

In the case at hand, the City has not ascertained how many minority enterprises are present in the local construction market nor the level of their participation in City construction projects. The City points to no evidence that qualified minority contractors have been passed over for City contracts or subcontracts, either as a group or in any individual case. Under such circumstances, it is simply impossible to say that the City has demonstrated "a strong basis in evidence for its conclusion that remedial action was necessary."¹⁴

The foregoing analysis was applied only to Blacks. The Court then emphasized that there was "absolutely no evidence" against other minorities. "The random inclusion of racial groups that, as a practical matter, may have never suffered from discrimination in the construction industry in Richmond, suggests that perhaps the City's purpose was not in fact to remedy past discrimination."¹⁵

Having found that Richmond had not presented evidence in support of its compelling interest in remedying discrimination—the first prong of strict scrutiny—the Court went on to make two observations about the narrowness of the remedy—the second prong of strict scrutiny. First, Richmond had not considered race-neutral means to increase MBE participation. Second, the 30 percent quota had no basis in evidence, and was applied regardless of whether the individual MBE had suffered discrimination.¹⁶ Further, Justice O'Connor rejected the argument that individualized consideration of Plan eligibility is too administratively burdensome.

Apparently recognizing that the opinion might be misconstrued to categorically eliminate all race-conscious contracting efforts, Justice O'Connor closed with these admonitions:

Nothing we say today precludes a state or local entity from taking action to rectify the effects of identified discrimination within its jurisdiction. If the City of Richmond had

¹³ *Id.* at 504; *but see Adarand v. Peña*, 515 U.S. 200 (1995) ("*Adarand III*") (applying strict scrutiny to Congressional race-conscious contracting measures).

¹⁴ 488 U.S. at 510.

¹⁵ *Id.*

¹⁶ *See Grutter*, 529 U.S. at 336-337 (quotas are not permitted; race must be used in a flexible, non-mechanical way).

evidence before it that non-minority contractors were systematically excluding minority businesses from subcontracting opportunities, it could take action to end the discriminatory exclusion. Where there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality's prime contractors, an inference of discriminatory exclusion could arise. Under such circumstances, the City could act to dismantle the closed business system by taking appropriate measures against those who discriminate based on race or other illegitimate criteria. In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion....Moreover, evidence of a pattern of individual discriminatory acts can, if supported by appropriate statistical proof, lend support to a local government's determination that broader remedial relief is justified.¹⁷

2. Strict Scrutiny as Applied to Federal Enactments

In *Adarand v. Peña*,¹⁸ the Court again overruled long settled law and extended the analysis of strict scrutiny under the Due Process Clause of the Fourteenth Amendment to federal enactments. Just as in the local government context, when evaluating federal legislation and regulations

[t]he strict scrutiny test involves two questions. The first is whether the interest cited by the government as its reason for injecting the consideration of race into the application of law is sufficiently compelling to overcome the suspicion that racial characteristics ought to be irrelevant so far as treatment by the government is concerned. The second is whether the government has narrowly tailored its use of race, so that race-based classifications are applied only to the extent absolutely required to reach the proffered interest. The strict scrutiny test is thus a recognition that while classifications based on race may be appropriate in certain limited legislative endeavors, such enactments must be carefully justified and meticulously applied so that race is determinative of the outcome in only the very narrow circumstances to which it is truly relevant.¹⁹

a. U.S. Department of Transportation's Disadvantaged Business Enterprise Program

In the wake of *Adarand*, Congress reviewed and revised the Disadvantaged Business Enterprise (DBE) Program statute²⁰ and implementing regulations²¹ for federal-aid contracts in the transportation industry. To date, every court that has considered the issue has found the

¹⁷ 488 U.S. at 509 (citations omitted).

¹⁸ 515 U.S. 200 (1995) (*Adarand III*).

¹⁹ *Adarand Constructors, Inc. v. Peña*, 965 F. Supp. 1556, 1569-1570 (D. Colo. 1997), *rev'd*, 228 F.3d 1147 (2000) ("*Adarand IV*"); *see also Adarand III*, 515 U.S. at 227.

²⁰ Transportation Equity Act for the 21st Century (TEA-21), Pub. L. No. 105-178 (b)(1), 112 Stat. 107, 113.

²¹ 49 CFR Part 26.

regulations to be constitutional on their face.²² While binding strictly only upon the DBE Program, these cases provide important guidance to New York about the types of evidence necessary to establish its compelling interest in adopting affirmative action contracting programs and how to narrowly tailor those programs.

Congress had strong evidence of widespread race discrimination in the construction industry.²³ Relevant evidence before Congress included:

- Disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms;
- Disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners;
- The large and rapid decline in minorities' participation in the construction industry when affirmative action programs were struck down or abandoned; and
- Various types of overt and institutional discrimination by prime contractors, trade unions, business networks, suppliers and sureties against minority contractors.²⁴

The Eighth Circuit Court of Appeals took a “hard look” at the evidence Congress considered, and concluded that the legislature had

spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry. In rebuttal, [the plaintiffs] presented evidence that the data were susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.²⁵

²² See, e.g., *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10th Cir. 2000) (“*Adarand VII*”), cert. granted then dismissed as improvidently granted, 532 U.S. 941, 534 U.S. 103 (2001); *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2004 U.S. Dist. LEXIS 3226 at *64 (N.D. Ill., Mar. 3, 2004) (“*Northern Contracting I*”).

²³ See also *Western States Paving Co., Inc. v. Washington Department of Transportation*, 407 F.3d 983, 993 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006) (“In light of the substantial body of statistical and anecdotal material considered at the time of TEA-21’s enactment, Congress had a strong basis in evidence for concluding that- in at least some parts of the country- discrimination within the transportation contracting industry hinders minorities’ ability to compete for federally funded contracts.”).

²⁴ See *id.*, 407 F.3d at 992-93.

²⁵ *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d. 964, 970 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004); see also *Adarand VII*, 228 F.3d at 1175 (Plaintiff has not met its burden “of introducing credible, particularized evidence to rebut the government’s initial showing of the existence of a compelling interest in remedying the nationwide effects of past and present discrimination in the federal construction procurement subcontracting market.”).

Next, the regulations were facially narrowly tailored, as was the State of Minnesota's application of those regulations. Unlike the prior program,²⁶ Part 26 provides that:

- The overall goal must be based upon demonstrable evidence of the number of DBEs ready, willing, and able to participate on the recipient's federally assisted contracts.
- The goal may be adjusted to reflect the availability of DBEs but for the effects of the DBE Program and of discrimination.
- The recipient must meet the maximum feasible portion of the goal through race-neutral measures as well as estimate that portion of the goal it predicts will be met through such measures.
- The use of quotas and set-asides is limited to only those situations where there is no other remedy.
- The goals are to be adjusted during the year to remain narrowly tailored.
- Absent bad faith administration of the Program, a recipient cannot be penalized for not meeting its goal.
- The presumption of social disadvantage for racial and ethnic minorities and women is rebuttable, "wealthy minority owners and wealthy minority firms are excluded, and certification is available to persons who are not presumptively disadvantaged but can demonstrate actual social and economic disadvantage."²⁷
- Exemptions and waivers from any or all Program requirements are available.

These elements have led the courts to conclude that the program is narrowly tailored on its face. First, the regulations place strong emphasis on the use of race-neutral means to achieve minority and women participation. Relying upon *Grutter v. Bollinger*, the Eighth Circuit held that while "[n]arrow tailoring does not require the exhaustion of every conceivable race-neutral alternative ... it does require serious, good faith consideration of workable race-neutral alternatives."²⁸

The DBE Program is also flexible. Eligibility is limited to small firms owned by persons whose net worth is less than \$750,000. There are built-in Program time limits, and the State may terminate the Program if it meets its annual overall goal through race-neutral means for two consecutive years. Moreover, the authorizing legislation is subject to Congressional reauthorization that will ensure periodic public debate.

²⁶ 49 C.F.R. Part 23.

²⁷ 345 F.3d. at 973.

²⁸ *Id.* at 972.

The court next held that the goals are tied to the relevant labor market. “Though the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in *Croson*....”²⁹

Finally, Congress has taken significant steps to minimize the race-conscious nature of the Program. “[W]ealthy minority owners and wealthy minority-owned firms are excluded, and certification is available to persons who are not presumptively [socially] disadvantaged but can demonstrate actual social and economic disadvantage. Thus, race is made relevant in the program, but it is not a determinative factor.”³⁰

DBE programs based upon a methodology similar to that for this Study for New York, including the availability analysis and the examination of disparities in the business formation rates and business earnings of minorities and women compared to similarly situated non-minority males, have been held to be narrowly tailored in their application of Part 26. The Minnesota Department of Transportation (Mn/DOT) relied upon a Study conducted by NERA and Colette Holt & Associates to set its DBE goal. The Eighth Circuit opined that while plaintiff

presented evidence attacking the reliability of NERA’s data, it failed to establish that better data was [sic] available or that Mn/DOT was otherwise unreasonable in undertaking this thorough analysis and in relying on its results. The precipitous drop in DBE participation in 1999, when no race-conscious methods were employed, supports Mn/DOT’s conclusion that a substantial portion of its 2001 overall goal could not be met with race-neutral measures, and there is no evidence that Mn/DOT failed to adjust its use of race-conscious and race-neutral methods as the year progressed, as the DOT regulations require.³¹

Likewise, the Seventh Circuit Court of Appeals affirmed the district court’s trial verdict that the Illinois Department of Transportation’s application of Part 26 was narrowly tailored based in large part upon the report and expert trial testimony of NERA and CHA.³² IDOT had a compelling interest in remedying discrimination in the marketplace for federally-funded highway contracts, and its Federal Fiscal Year 2005 DBE Plan was narrowly tailored to that interest and in conformance with the DBE Program regulations.

To determine whether IDOT met its constitutional and regulatory burdens, the court reviewed the evidence of discrimination against minority and women construction firms in the Illinois area. IDOT had commissioned a NERA Availability Study to meet Part 26’s requirements. Similar to this Study for New York, the IDOT Study included a custom census of the availability of DBEs

²⁹ *Id.*

³⁰ *Id.* at 973.

³¹ *Id.*

³² *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007) (7th Cir. 2007) (“*Northern Contracting III*”). Ms. Holt authored IDOT’s DBE goal submission, and she and Dr. Wainwright testified as IDOT’s expert witnesses at the trial.

in IDOT's marketplace, weighted by the location of IDOT's contractors and the types of goods and services IDOT procures. NERA estimated that DBEs comprised 22.77 percent of IDOT's available firms.³³ The IDOT Study next examined whether and to what extent there are disparities between the rates at which DBEs form businesses relative to similarly situated non-minority men, and the relative earnings of those businesses. If disparities are large and statistically significant, then the inference of discrimination can be made. Controlling for numerous variables such as the owner's age, education, and the like, the Study found that in a race- and gender-neutral marketplace the availability of DBEs would be approximately 20.8 percent higher, for an estimate of DBE availability "but for" discrimination of 27.51 percent.

In addition to the IDOT Study by NERA, the court also relied upon:

- A NERA Availability Study conducted for Metra, the Chicago-area commuter rail agency;
- Expert reports relied upon by an earlier trial court in finding that the City of Chicago had a compelling interest in its minority and women business program for construction contracts;³⁴
- Expert reports and anecdotal testimony presented to the Chicago City Council in support of the City's revised M/WBE Procurement Program ordinance in 2004;
- Anecdotal evidence gathered at IDOT's public hearings on the DBE program;
- Data on DBE involvement in construction projects in markets without DBE goals; and
- IDOT's "zero goal" experiment, where DBEs received approximately 1.5 percent of the total value of the contracts. This was designed to test the results of "race-neutral" contracting policies, that is, the utilization of DBEs on contracts without goals, which several courts have held to be highly relevant and probative of the continuing need for race-conscious remedies.

"Also of note, IDOT examined the system utilized by the Illinois State Toll Highway Authority, which does not receive federal funding; though the Tollway has a DBE goal of 15 percent, this goal is completely voluntary -- the average DBE usage rate in 2002 and 2003 was 1.6 percent. On the basis of all of this data, IDOT adopted 22.77 percent as its Fiscal Year 2005 DBE goal."³⁵

Based upon this record, the court of appeals agreed with the trial court's judgment that the Program was narrowly tailored. IDOT's plan was based upon sufficient proof of discrimination

³³ This baseline figure of DBE availability is the "step 1" estimate U.S. DOT grant recipients must make pursuant to 49 CFR §26.45.

³⁴ *Builders Association of Greater Chicago v. Chicago*, 298 F. Supp. 2d 725 (N.D. Ill. 2003).

³⁵ *Northern Contracting III*, 473 F.3d at 719.

such that race-neutral measures alone would be inadequate to assure that DBEs operate on a “level playing field” for government contracts.

The stark disparity in DBE participation rates on goals and non-goals contracts, when combined with the statistical and anecdotal evidence of discrimination in the relevant marketplaces, indicates that IDOT’s 2005 DBE goal represents a “plausible lower-bound estimate” of DBE participation in the absence of discrimination....Plaintiff presented no persuasive evidence contravening the conclusions of IDOT’s studies, or explaining the disparate usage of DBEs on goals and non-goals contracts....IDOT’s proffered evidence of discrimination against DBEs was not limited to alleged discrimination by prime contractors in the award of subcontracts. IDOT also presented evidence that discrimination in the bonding, insurance, and financing markets erected barriers to DBE formation and prosperity. Such discrimination inhibits the ability of DBEs to bid on prime contracts, thus allowing the discrimination to indirectly seep into the award of prime contracts, which are otherwise awarded on a race- and gender-neutral basis. This indirect discrimination is sufficient to establish a compelling governmental interest in a DBE program.... Having established the existence of such discrimination, a governmental entity “has a compelling interest in assuring that public dollars, drawn from the tax contributions of all citizens, do not serve to finance the evil of private prejudice.”³⁶

Most recently, the district court in a challenge to New Jersey Transit’s (NJT) DBE program, applied *Sherbrooke, Northern Contracting* and *Western States* to dismiss plaintiff’s argument that New Jersey must independently establish its compelling interest in implementing the federal regulations as a “red herring.”³⁷ It held that a recipient’s constitutional duty under Part 26 is to narrowly tailor its program; it “does not need to justify establishing its DBE program, as it has already been justified by the [federal] legislators.”³⁸ The court then held that there were sufficient factual disputes about whether NJT’s goal setting method, step 2 adjustment, and included groups were narrowly tailored to preclude summary judgment, and ordered the case to trial.

b. U.S. Department of Defense’s Small Disadvantaged Business Program

In 2009, the Federal Circuit Court of Appeals struck down the Department of Defense (DOD) program for Small Disadvantaged Businesses (SDBs) in *Rothe Development Corporation v. U.S. Department of Defense*.³⁹ The program set an overall annual goal of five percent for DOD contracting with SDBs and authorized various race-conscious measures to meet the goal.

³⁶ *Northern Contracting II*, at *82 (internal citations omitted); see *Croson*, 488 U.S. at 492.

³⁷ *GEOD Corp. v. New Jersey Transit Corp.*, 2009 U.S. Dist. Lexis 74120, *11 (D. N. J. Aug. 20, 2009),.

³⁸ *Id.* at *12.

³⁹ 545 F.3d 1023 (*Fed. Cir.* 2008) (“*Rothe VII*”).

The court held that Section 1207,⁴⁰ which, among other remedies, provided a 10 percent bid preference to SDBs, violated strict constitutional scrutiny because Congress did not have a “strong basis in evidence” upon which to conclude that DOD was a passive participant in racial discrimination in relevant markets across the country. The six local disparity studies upon which DOD primarily relied for evidence of relevant discrimination did not meet the compelling interest requirement—and in any event were not “before” Congress when it reenacted the program in 2006—and other statistical and anecdotal evidence did not rise to the heavy constitutional burden.

Rothe VII was the latest iteration of an 11-year-old challenge by a firm owned by a white female to DOD’s award of a contract to an Asian American-owned business despite the fact that plaintiff was the lowest bidder. Since the case began in 1998, Congress has reenacted Section 1207 a number of times, the district court has rendered judgment three times, and the appellate court has remanded the case twice. *Rothe VII* ends this litigation, as DOD did not appeal the judgment. The statute would have expired on its terms at the end of federal fiscal year 2009.

First enacted in 1986, Section 1207 set a goal of expanding five percent of DOD procurement, research and design, construction, and maintenance contracts with small business concerns owned and controlled by “socially and economically disadvantaged individuals,” as defined by the Small Business Act.⁴¹ Section 8(d) of the Small Business Act and relevant regulations, in turn, provided at that time that Black Americans, Hispanic Americans, Native Americans, Asian Pacific Americans, and other minorities were presumed to be “socially and economically disadvantaged individuals.”⁴² To facilitate achievement of the five percent goal, the secretary of defense was permitted to enter into contracts using less than full and open competitive procedures (including awards under section 8(a) of the Small Business Act), with a price preference not to exceed 10 percent.⁴³

In 2006, Congress amended the statute to reduce the burden on SDBs by, among other changes, ensuring that no particular industry would bear a disproportionate share of the contracts awarded to attain the five percent goal; a minority owner must establish that his or her personal net worth is less than \$750,000; and a disappointed bidder may protest the SDB status of the successful bidder.

In *Rothe VII*, the appeals court reviewed the district court’s holding⁴⁴ *de novo*, and applied the strict scrutiny standard because the statute incorporates explicit racial classifications. DOD bore

⁴⁰ 10 U.S.C. § 2323.

⁴¹ 15 U.S.C. 673.

⁴² 15 U.S.C. § 637(d)(3)(C)(ii) (1990).

⁴³ *Public Law* 99-661, § 1207(e)(3).

⁴⁴ The court discusses an interesting jurisdictional question that is not relevant to the strict scrutiny analysis, *i.e.*, whether the Federal Circuit, whose jurisdiction rests upon an appeal of a judgment based in whole or in part on the Tucker Act (28 U.S.C. § 1295[a][2]) has jurisdiction over the appeal where the Tucker Act claim had been satisfied. Moreover, the very limited jurisdiction of the Federal Circuit to federal contract claims casts into question the precedential value of its reasoning on a constitutional matter far afield from its statutorily defined docket.

the burden of production of evidence of its “compelling interest” in remedying discrimination and that the remedies adopted are “narrowly tailored” to that evidence.

The opinion discusses in detail the evidence that Congress considered in the 2006 reenactment. This consisted of:

- Six disparity studies of state or local contracting in the cities of Dallas,⁴⁵ Cincinnati,⁴⁶ and New York;⁴⁷ in Cuyahoga County, Ohio,⁴⁸ and Alameda County, California;⁴⁹ and in the Commonwealth of Virginia;⁵⁰
- A September 2005 document issued by the United States Commission on Civil Rights (USCCR) titled “Federal Procurement After *Adarand*”;
- Letters from individual business owners describing incidents of perceived discrimination in state, local, and private contracting;
- Various anecdotes regarding discrimination recounted by members of Congress in floor statements or remarks;
- Testimony by small business owners before the House Small Business Committee in 2001 and 2004; and
- Three studies from the Small Business Administration regarding the ownership and success rates of small businesses.

The primary focus of the evidence was the strength of the six disparity studies. The court reaffirmed that such studies are relevant to the compelling interest analysis. It then turned to Rothe’s first argument and rejected the position that data more than five years old must be discarded. The court “decline[d] to adopt such a *per se* rule here.... [The government] should be able to rely on the most recently available data so long as that data is reasonably up-to-date.”⁵¹

While the studies were sufficiently current, the court held that they were not sufficiently before Congress to be relied upon to meet strict scrutiny. “The six studies were not discussed at any congressional hearings. And because Congress made no findings concerning these studies, we

⁴⁵ “City of Dallas Availability and Disparity Study,” Mason Tillman Associates, Ltd. (2002).

⁴⁶ “City of Cincinnati Disparity Study,” Griffin & Strong, PC (2002).

⁴⁷ “City of New York Disparity Study,” Mason Tillman Associates, Ltd. (2005).

⁴⁸ “Ohio Multi-Jurisdictional Disparity Studies,” Mason Tillman Associates, Ltd. (2003).

⁴⁹ “Alameda County Availability Study,” Mason Tillman Associates, Ltd. (2004).

⁵⁰ “Procurement Disparity Study of the Commonwealth of Virginia,” MGT of America, Inc. (2004).

⁵¹ 545 F.3d at 1038–1039.

cannot even broach the question of whether to defer to Congress in any respect regarding them.”⁵²

Despite finding that Congress did not rely upon the studies, the court chose to review them anyway, and held that “we need not decide whether these six studies were put before Congress, because we will hold in any event that the studies do not provide a substantially probative and broad-based statistical foundation necessary for the ‘strong basis in evidence’ that must be the predicate for nationwide, race-conscious action.”⁵³

The district court held that Rothe’s failure to offer any expert reports to rebut the studies did not meet its burden of persuasion to demonstrate that Congress lacked compelling evidence because the studies were irrelevant or flawed.⁵⁴ The appellate court disagreed, saying the studies should have been examined *de novo* despite the lack of a trial record because the type of general objections raised by Rothe was of the “same general character” as that voiced by Justice O’Connor in *Croson*. Without addressing later cases that have given substance to *Croson*’s broad comments in the context of actual studies by establishing that generalized objections are not sufficient, and despite the lack of expert reports or the testimony of the studies’ authors to guide its consideration of complex statistical issues, the Federal Circuit stated that “the potential pitfalls of race-conscious legislation are far too great for a court to dismiss such objections as incompetently offered, rather than to address them on their merits.”⁵⁵ Rather than remand the case to the district court for development of a factual record, the appeals court reached to consider the merits of the studies for the first time.

In the absence of expert testimony about accepted econometric models of discrimination, the court was troubled by the failure of five of the studies to account for size differences and “qualifications” of the minority firms in the denominator of the disparity analysis,⁵⁶ or as the court terms it, “relative capacity.”⁵⁷ The court was concerned about the studies’ inclusion of possibly “unqualified” minority firms and the failure to account for whether a firm can perform more than one project at a time in two of the studies.⁵⁸ In the court’s view, the combination of these perceived deficits rendered the studies insufficiently probative to meet Congress’ burden.

⁵² *Ibid.*

⁵³ *Ibid.* at 1040.

⁵⁴ *Rothe Development Corp. v. U.S. Department of Defense et al*, 499 F.Supp.2d 775, 847 (W.D. Tex. 2007) (“*Rothe VT*”): “Rothe did not submit an expert report attacking the data, methodology, or conclusions of the New York Study.... The Court rejects Rothe’s objections to the data or reliability of the six disparity studies, including the New York Study, because those objections are not supported by an expert report or other competent summary judgment evidence.... General criticism of disparity studies, as opposed to particular evidence undermining the reliability of the particular study, is of little persuasive value.”

⁵⁵ 545 F.3d at 1040.

⁵⁶ There is no explanation why similar concerns should not be raised about non-minority-owned firms included in the denominator.

⁵⁷ 545 F.3d at 1042.

⁵⁸ *Ibid.*

The appellate court ignored the cases upholding the USDOT Disadvantaged Business Enterprise Program and the City of Denver's local affirmative action contracting program where the fallacy of "capacity" was debunked, all of which were cited extensively by the district court. It relied instead on a report from the USCCR, which adopts the views of anti-affirmative action writers, including those of plaintiff's consultant.⁵⁹

However, the court is careful to limit the reach of its review to the facts of the case:

To be clear, we do *not* hold that the defects in the availability and capacity analyses in these six disparity studies render the studies wholly unreliable for any purpose. Where the calculated disparity ratios are low enough, we do not foreclose the possibility that an inference of discrimination might still be permissible for *some* of the minority groups in *some* of the studied industries in *some* of the jurisdictions. And we recognize that a minority owned firm's capacity and qualifications may themselves be affected by discrimination. But we hold that the defects we have noted detract dramatically from the probative value of these six studies, and, in conjunction with their limited geographic coverage, render the studies insufficient to form the statistical core of the "strong basis in evidence" required to uphold the statute.⁶⁰

Finally, the additional statistical evidence relied upon by the district court was held to be insufficiently current, or was not "before" Congress, or failed to account for "capacity".⁶¹

The Federal Circuit concludes its analysis of compelling interest by "stress[ing] that our holding is grounded in the particular terms of evidence offered by DOD and relied on by the district court in this case, and should not be construed as stating blanket rules, for example, about the reliability of disparity studies."⁶²

Given the holding that Congress lacked a strong basis in evidence for Section 1207, the court did not rule on whether its provisions were narrowly tailored. The lack of "strongly probative statistical evidence makes it impossible" to determine whether the five percent goal reflects "the share of contracts minorities would receive in the absence of discrimination."⁶³ It did note, however, its prior rulings that the program is flexible, limited in duration, and not unduly burdensome to third parties, and that the program has tended to narrow the reach of its remedies over time.

The question of broad application in *Rothe VII* is whether disparity studies must somehow control for "capacity" without reference to the impact of discrimination on the variables usually cited. First, the absence of expert testimony may have influenced the court's analysis. Where reports have been proffered by highly qualified experts, judges have understood that variables

⁵⁹ USCCR, *Disparity Studies as Evidence of Discrimination in Federal Contracting* (May 2006): 79.

⁶⁰ 545 F.3d at 1045 (quoting from Justice Scalia's dissent in *Concrete Works V*, 540 U.S. 1027, 1032 [2003]).

⁶¹ *Id.* at 1047–1048.

⁶² *Id.* at 1049.

⁶³ *Id.* at 1049–1050.

such as firms' size and experience are adversely affected by discrimination. In fact, the Federal Circuit alludes to this fact, noting "that a minority owned firm's capacity and qualifications may themselves be affected by discrimination," without seeming to understand the implications for econometric modeling of discrimination.⁶⁴ Had DOD presented expert testimony, Section 1207 might have been upheld as has the USDOT DBE program.

Next, claims that the availability measure in the disparity statistic does not factor in "capacity" or, stated another way, that availability statistics may include firms that are not "qualified, willing, and able" to perform the work are arguably unwarranted and unscientific. Adjusting statistical evidence in disparity studies for so-called "capacity" measures will prevent accurate measurement of the existence of the "market failure" of discrimination.⁶⁵ Many, if not all, "capacity" indicators are themselves impacted by discrimination. Therefore, it is not good social science to limit availability measures by factors such as firm age, revenues, or numbers of employees.

Further, the reality is that large, adverse statistical disparities between minority-owned or women-owned businesses and non-minority male-owned businesses have been documented in numerous research studies and reports since *Crosen*.⁶⁶ Business outcomes, however, can be influenced by multiple factors, and it is important that disparity studies examine the likelihood of whether discrimination is an important contributing factor to observed disparities.

Moreover, terms such as "capacity," "qualifications," and "ability" are not well defined in any statistical sense. Does "capacity" mean revenue level, employment size, bonding limits, or number of contracts bid or awarded? Does "qualified" or "able" mean possession of a business license, certain amounts of training, types of work experience, or the number of contracts a firm can perform at a given moment? What mix of business attributes properly reflects "capacity"? Does the meaning of such terms differ from industry to industry, locality to locality, or through time? Where and how might such data be reliably gathered?

Even if capacity is well-defined and adequate data are gathered, when measuring the existence of discrimination, the statistical method used should not improperly limit the availability measure by incorporating factors that are themselves impacted by discrimination, such as firm age, revenues, bonding limits, or numbers of employees.

Consider an extreme example where discrimination has prevented the emergence of any minority owned firms. Suppose that racial discrimination was ingrained in a state's highway construction market. As a result, few minority construction employees are given the opportunity to gain managerial experience in the business; minorities who do end up starting construction firms are denied the opportunity to work as subcontractors for non-minority prime contractors; and non-minority prime contractors place pressure on unions not to work with minority firms and on bonding companies and banks to prevent minority owned construction firms from securing

⁶⁴ 545 F.3d at 1045.

⁶⁵ *Builders Association v. Chicago*, 298 F.Supp.2d at, 737.

⁶⁶ Enchautegui, et al. (1996).

bonding and capital. In this example, discrimination has prevented the emergence of a minority highway construction industry with “capacity.” Those MBEs that exist at all will be smaller and less experienced and have lower revenues, bonding limits, and employees— that is, “capacity”— because of discrimination than firms that have benefited from the exclusionary system.

Using revenue as the measure of qualifications illustrates the point. If M/WBEs are subject to marketplace discrimination, their revenues will be smaller than non-minority, male-owned businesses because they will be less successful at obtaining work. Revenue measures the extent to which a firm has succeeded in the marketplace, perhaps in spite of discrimination—it does not measure the ability to succeed in the absence of discrimination and should not be used to evaluate the effects of discrimination.

Therefore, focusing on the “capacity” of businesses in terms of employment, revenue, bonding limits, number of trucks, and so forth is simply wrong as a matter of economics because it can obscure the existence of discrimination. A truly “effective” discriminatory system would lead to a finding of no “capacity,” and under the “capacity” approach, a finding of no discrimination. Excluding firms from an availability measure based on their “capacity” in a discriminatory market merely affirms the results of discrimination, not meliorates these results them. A capacity requirement would preclude the State from doing anything to rectify its passive participation through public dollars in a clearly discriminatory system. The capacity argument fails to acknowledge that discrimination has prevented the emergence of “qualified, willing, and able” minority firms. Without such firms, there can be no statistical disparity.

Further, in dynamic business environments, and especially in the construction sector, such “qualifications” or “capacity” can be obtained relatively easily. It is well known that small construction companies can expand rapidly as needs arise by hiring workers and renting equipment, and many general contractors subcontract the majority of a project. Firms grow quickly when demand increases and shrink quickly when demand decreases. Subcontracting is one important source of this elasticity, as has been noted by several academic studies.⁶⁷ Other industry sectors, especially in this era of Internet commerce and independent contractors, can also quickly grow or shrink in response to demand.

Finally, even where “capacity”-type factors have been controlled for in statistical analyses, results consistent with business discrimination are still typically observed. For example, large and statistically significant differences in commercial loan denial rates between minority and non-minority firms are evident throughout the country, even when detailed balance sheet and creditworthiness measures are held constant.⁶⁸ Similarly, economists using decennial census data

⁶⁷ Clinton C. Bourdon and Raymond E. Levitt, *Union and Open-Shop Construction, Compensation, Work Practices, and Labor Markets* (Lexington, MA: Lexington Books, 1980); see also Robert G. Eccles, “Bureaucratic versus Craft Administration: The Relationship of Market Structure to the Construction Firm,” *Administrative Science Quarterly*, v.26, 1981; and Frederick Elliot Gould, “Investigation in Construction Entrepreneurship,” Masters Thesis, MIT, May 1980.

⁶⁸ See “Discrimination Facing Small Minority Owned and Women-Owned Businesses in Commercial Credit Markets,” Testimony of Jon S. Wainwright before the Committee on Small Business and Entrepreneurship, U.S. Senate, September 11, 2008.

have demonstrated that statistically significant disparities in business formation and business owner earnings between minorities and non-minorities remain even after controlling for a host of additional relevant factors, including educational achievement, labor market experience, marital status, disability status, veteran status, interest and dividend income, labor market attachment, industry, geographic location, and local labor market variables such as the unemployment rate, population growth rate, government employment rate, or per capita income.⁶⁹

To summarize, the statistical analysis of the availability of minority firms compared to non-minority firms to examine the existence and effects of discrimination in disparity studies should not adjust for “capacity” because:

- “Capacity” has been ill-defined;
- Small firms, particularly in the construction industry, are highly elastic with regard to ability to perform;
- Many disparity studies have shown that even when “capacity” and “qualifications”-type factors are held constant in statistical analyses, evidence of disparate impact against DBE and M/WBE firms tends to persist; and
- Most important, identifiable indicators of “capacity” are themselves impacted by discrimination.

3. Preferences for Women

Whether affirmative action procurement programs that benefit women are subject to the lesser constitutional standard of “intermediate scrutiny” has yet to be settled by the Supreme Court.⁷⁰ Most courts have applied intermediate scrutiny to preferences for women,⁷¹ and then upheld or struck down the female preference under that standard.⁷² This is probably a distinction without meaningful difference, as only one post-*Croson* court has upheld WBE provisions while striking

⁶⁹ Jon S. Wainwright, “Racial Discrimination and Minority Business Enterprise, Evidence from the 1990 Census,” *Studies in Entrepreneurship Series*, Edited by S. Bruchey, New York, NY: Garland Publishing, 2000.

⁷⁰ *Cf. United States v. Virginia*, 518 U.S. 515 (1996) (applying standard of “exceedingly persuasive justification” in striking down Virginia Military Institute’s males only admissions policy).

⁷¹ *See, e.g., Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore et al*, 83 F.Supp.2d 613, 620 (D. Md. 2000).

⁷² *See, e.g., Northern Contracting I*, at *44 (women’s status as presumptively socially disadvantaged passes intermediate scrutiny); *W.H. Scott Construction Co., Inc. v. City of Jackson*, 199 F.3d 206, 215 n.9 (5th Cir. 1999); *Engineering Contractors Assoc. of South Florida, Inc. v. Metropolitan Engineering Contractors (“Engineering Contractors II”)*, 122 F.3d 895, 907-910 (11th Cir. 1997); *Concrete Works, Inc. v. City and County of Denver (“Concrete Works II”)*, 36 F.3d 1513, 1519 (10th Cir. 1994); *Contractors Association of Eastern Pennsylvania v. City of Philadelphia (“Philadelphia II”)*, 6 F.3d 990, 1009 (3rd Cir. 1993); *Coral Construction Co. v. King County*, 941 F.2d 910, 930-931 (9th Cir. 1991); *Associated Utility Contractors of Maryland, Inc. v. Baltimore*, 83 F.Supp.2d 613 (D. Md. 2000) (“*Baltimore I*”); *but see Brunet v. City of Columbus*, 1 F.3d 390, 404 (6th Cir. 1993) (applying strict scrutiny).

down M/WBE measures.⁷³ Further, as observed by the Seventh Circuit Court of Appeals, applying intermediate scrutiny to gender “creates the paradox that a public agency may provide stronger remedies for sex discrimination than for race discrimination; it is difficult to see what sense that makes.”⁷⁴ Therefore, the State would be wise to meet the rigors of strict scrutiny for gender preferences.

4. Burdens of Production and Proof

Unlike most legal challenges, the defendant has the initial burden of producing “strong evidence” in support of the program. The plaintiff must then proffer evidence to rebut the government’s case, and bears the ultimate burden of production and persuasion that the affirmative action program is unconstitutional.⁷⁵ There is no need of formal legislative findings,⁷⁶ nor “an ultimate judicial finding of discrimination before [a local government] can take affirmative steps to eradicate discrimination.”⁷⁷ When the statistical information is sufficient to support the inference of discrimination, the plaintiff must prove that the statistics are flawed.⁷⁸ A plaintiff cannot rest upon general criticisms of studies or other evidence; it must carry the case that the government’s proof is inadequate to meet strict scrutiny, rendering the legislation or governmental program illegal.⁷⁹ The determination whether a plaintiff has met this burden is a question of law, subject to *de novo* review.⁸⁰

B. New York’s Compelling Interest in Remedying Identified Discrimination in Its Contracting Marketplaces

Much of the discussion in the case law has revolved around what type of evidence is sufficiently “strong” to establish the continuing existence and effects of economic discrimination against minorities resulting in diminished opportunities to do business with the government. Proof of the disparate impacts of economic factors on M/WBEs and the disparate treatment of such firms by actors critical to success is necessary to meet strict scrutiny. Discrimination must be shown using

⁷³ *Coral Construction*, 941 F.2d at 932 (applying intermediate scrutiny); cf. *Western States Paving Co.*, 407 F.3d at 991 n.6 (no need to conduct a separate analysis of sex-based classifications under intermediate scrutiny because it would not yield a different result from strict scrutiny).

⁷⁴ *Builders Association of Greater Chicago v. County of Cook*, 256 F.3d 642, 644 (7th Cir. 2001).

⁷⁵ *Adarand VII*, 228 F.3d at 1166; *Scott*, 199 F.3d at 219.

⁷⁶ *Webster v. Fulton County, Georgia*, 51 F.Supp2d 1354, 1364 (N.D. Ga. 1999), *aff’d*, 218 F.3d 1267 (2000), *cert. denied*, 532 U.S. 942 (2001).

⁷⁷ *Concrete Works II*, 36 F.3d at 1522.

⁷⁸ *Engineering Contractors II*, 122 F.3d at 916; *Coral Construction*, 941 F.2d at 921.

⁷⁹ *Adarand VII*, 228 F.3d at 1166; *Engineering Contractors II*, 122 F.3d at 916; *Contractors Association of Eastern Pennsylvania v. City of Philadelphia* (“*Philadelphia III*”), 91 F.3d 586, 597 (3rd Cir. 1996); *Concrete Works II*, 36 F.3d at 1522 1523; *Webster*, 51 F. Supp. 2d at 1364; *see also Wygant v. Jackson Board of Education*, 476 U.S. 267, 277-278 (1986).

⁸⁰ *Adarand VII*, 228 F.3d at 1161; *Associated General Contractors of Ohio v. Drabik*, 214 F.3d 730, 734 (6th Cir. 2000); *Scott*, 199 F.3d at 211; *but see Engineering Contractors II*, 122 F.3d at 917 (meeting constitutional test is a question of fact, subject only to appellate review for abuse of discretion).

statistics and economic models to examine the effects of systems or markets on different groups, as well as by evidence of personal experiences with discriminatory conduct, policies or systems.⁸¹ Specific evidence of discrimination or its absence may be direct or circumstantial, and should include economic factors and opportunities in the private sector affecting the success of M/WBEs.⁸²

1. Definition of New York State's Marketplace

Croson counsels that a state or local government may only remedy discrimination within its own contracting marketplace. Richmond was specifically faulted for including minority contractors from across the country in its program.⁸³ Therefore, this Study employs long established economic principles to empirically establish the geographic and industry dimensions of the State's contracting marketplace in order to ensure that the evidence is narrowly tailored.⁸⁴

2. Examining Disparities Between M/WBE Availability and Utilization

Next, statistical examination of the availability of minorities and women to participate in New York's projects and the history of utilizing M/WBEs as prime contractors and utilizing M/WBEs as subcontractors by the State and its prime contractors is required. Simple disparities between New York's overall minority population and the State's and its prime contractors' utilization of minority- and women-owned firms are not enough.⁸⁵ The primary inquiry is whether there are statistically significant disparities between the availability of M/WBEs and the utilization of such firms.

Where there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality's prime contractors, an inference of discriminatory exclusion could arise....In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion.⁸⁶

This is known as the "disparity index" or "disparity ratio." This index is calculated by dividing the utilization of M/WBEs by the availability of M/WBEs. Courts have looked to disparity indices in determining whether *Croson's* evidentiary foundation is satisfied.⁸⁷ An index less than

⁸¹ *Adarand VII*, 228 F.3d at 1166 ("statistical and anecdotal evidence are appropriate").

⁸² *Id.*

⁸³ 488 U.S. at 508.

⁸⁴ *Concrete Works II*, 36 F.3d at 1520 (to confine data to strict geographic boundaries would ignore "economic reality").

⁸⁵ *Croson*, 488 U.S. at 501-02; *Drabik*, 214 F.3d at 736.

⁸⁶ *Croson*, 488 U.S. at 509; *see Webster*, 51 F.Supp.2d at 1363, 1375.

⁸⁷ *Scott*, 199 F.3d at 218; *Concrete Works II*, 36 F.3d at 1526-1527; *O'Donnell Construction Co., Inc. v. District of Columbia*, 963 F.2d 420, 426 (D.C. Cir. 1992); *Cone Corp. v. Hillsborough County*, 908 F.2d 908, 916 (11th Cir. 1990), *cert. denied*, 498 U.S. 983 (1990).

100 percent indicates that a given group is being utilized less than would be expected based on its availability.

Calculations of the availability of minority- and women-owned firms are therefore the crucial foundation for examining affirmative action in contracting.⁸⁸ In addition to creating the disparity index, correct measures of availability are necessary to determine whether discriminatory barriers depress the formation of firms by minorities and women, and the success of such firms in doing business in both the private and public sectors.⁸⁹

New York need not prove that the statistical inferences of discrimination are “correct.” In upholding Denver’s M/WBE Program, the Tenth Circuit noted that strong evidence supporting Denver’s determination that remedial action was necessary need not have been based upon “irrefutable or definitive” proof of discrimination. Statistical evidence creating inferences of discriminatory motivations was sufficient and therefore evidence of marketplace discrimination was properly used to meet strict scrutiny. It is the plaintiff who must prove by a preponderance of the evidence that such proof does not support those inferences.⁹⁰

It is also the case that if M/WBEs are overutilized under the State’s program, that does not end the inquiry. This is critical for a government like the State of New York, which has implemented a program for many years. Where the government has been implementing affirmative action remedies M/WBE utilization reflects those efforts; it does not signal the end of discrimination. For example, the Tenth Circuit held that Denver’s overutilization of M/WBEs on City projects with goals went only to the weight of the evidence because it reflected the effects of a remedial program. Denver presented evidence that goals and non-goals projects were similar in purpose and scope and that the same pool of contractors worked on both types. “Particularly persuasive” was evidence that M/WBE participation declined significantly when the program was amended in 1989. “The utilization of M/WBEs on City projects has been affected by the affirmative action programs that have been in place in one form or another since 1977. Thus, the non-goals data is [sic] the better indicator of discrimination in public contracting” and supports the position that discrimination was present before the enactment of the ordinances.⁹¹

3. Unremediated Markets Data

It is also useful to measure M/WBE participation in the absence of affirmative action goals, if such evidence is available. Evidence of race and gender discrimination in relevant

⁸⁸ *Philadelphia III*, 91 F.3d at 603; *Webster*, 51 F.Supp.2d at 1372 (no explanation for the source nor any indicia of the accuracy or reliability of availability figures).

⁸⁹ *Webster*, 51 F.Supp.2d at 1372; see *Northern Contracting II*, at *70 (IDOT’s custom census approach was supportable because “discrimination in the credit and bonding markets may artificially reduce the number of registered” minority- and women-owned firms).

⁹⁰ *Concrete Works, Inc. v. City and County of Denver*, 321 F.3d, 950, 971 (10th Cir. 2003), *cert. denied*, 540 U.S. 1027 (2003) (“*Concrete Works IV*”).

⁹¹ *Id.* at 987-988.

“unremediated”⁹² markets provides an important indicator of what level of actual M/WBE participation can be expected in the absence of government mandated affirmative efforts to contract with M/WBEs.⁹³ The courts are clear that the government has a compelling interest in not financing the evil of private prejudice with public dollars.⁹⁴ If M/WBE utilization is below availability in unremediated markets, an inference of discrimination may be supportable. The virtual disappearance of M/WBE participation after programs have been enjoined or abandoned strongly indicates substantial barriers to minority subcontractors, “raising the specter of racial discrimination.”⁹⁵ Unremediated markets analysis addresses whether the government has been and continues to be a “passive participant” in such discrimination, in the absence of affirmative action remedies.⁹⁶ The results of non-goals contracts can help to demonstrate that, but for the interposition of remedial affirmative action measures, discrimination would lead to disparities in government contracting. The “dramatic decline in the use of M/WBEs when an affirmative action program is terminated, and the paucity of use of such firms when no affirmative action program was ever initiated,” has been held to be proof of the government’s compelling interest in employing race- and gender-conscious measures.⁹⁷ Evidence of unremediated markets “sharpens the picture of local market conditions for MBEs and WBEs.”⁹⁸ It is particularly useful as a comparison where the agency has been applying race-conscious remedies for discrimination.

4. Anecdotal Evidence

Anecdotal evidence of experiences with discrimination in contracting opportunities is relevant because it goes to the question of whether observed statistical disparities are due to discrimination and not to some other non-discriminatory cause or causes.⁹⁹ As observed by the Supreme Court, anecdotal evidence presented in a pattern or practice discrimination case can be persuasive because it “brought the cold [statistics] convincingly to life”.¹⁰⁰ Testimony about discrimination by prime contractors, unions, bonding companies, suppliers, and lenders has been found relevant regarding barriers both to minority subcontractors’ business formation and to their success on governmental projects.¹⁰¹ While anecdotal evidence is insufficient standing alone, “[p]ersonal accounts of actual discrimination or the effects of discriminatory practices may, however, vividly complement empirical evidence. Moreover, anecdotal evidence of a

⁹² “Unremediated market” means “markets that do not have race- or gender-conscious subcontracting goals in place to remedy discrimination.” *Northern Contracting II*, at *36.

⁹³ See, e.g., *Western States*, 407 F.3d at 992 (Congress properly considered evidence of the “significant drop in racial minorities’ participation in the construction industry” after state and local governments removed affirmative action provisions).

⁹⁴ See, e.g., *Drabik*, 214 F.3d at 734-735.

⁹⁵ *Adarand VII*, 228 F.3d at 1174.

⁹⁶ See also *Philadelphia III*, 91 F.3d at 599-601.

⁹⁷ *Builders Association v. Chicago*, 298 F. Supp.2d at 737; see also *Concrete Works IV*, 321 F.3d at 987-988.

⁹⁸ *Concrete Works II*, 36 F.3d at 1529.

⁹⁹ *Webster*, 51 F.Supp.2d at 1363, 1379.

¹⁰⁰ *International Brotherhood of Teamsters v. United States*, 431 U.S. 324, 399 (1977).

¹⁰¹ *Adarand VII*, 228 F.3d at 1168-1172.

[government's] institutional practices that exacerbate discriminatory market conditions are [sic] often particularly probative.”¹⁰² “[W]e do not set out a categorical rule that every case must rise or fall entirely on the sufficiency of the numbers. To the contrary, anecdotal evidence might make the pivotal difference in some cases; indeed, in an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough.”¹⁰³

There is no requirement that anecdotal testimony be verified or corroborated, as befits the role of evidence in legislative decision-making as opposed to judicial proceedings. “Denver was not required to present corroborating evidence and [plaintiff] was free to present its own witnesses to either refute the incidents described by Denver’s witnesses or to relate their own perceptions on discrimination in the Denver construction industry.”¹⁰⁴

C. Narrowly Tailoring a Minority-Owned and Women-Owned Business Enterprise Procurement Program for the State of New York

The following factors must be considered in determining whether any race- and gender-based remedies that might be adopted by the State are narrowly tailored to achieve their purpose:

- The efficacy of race-neutral remedies at overcoming identified discrimination;
- The relationship of numerical benchmarks for government spending to the availability of M/WBEs and to subcontracting goal setting procedures;
- The flexibility of the program requirements, including the provision for good faith efforts to meet goals and contract specific goal setting procedures;
- The congruence between the remedies adopted and the beneficiaries of those remedies;
- Any adverse impact of the relief on third parties; and
- The duration of the program.¹⁰⁵

The Fourth Circuit Court of Appeals has described the narrow tailoring requirements as follows:

The preferences may remain in effect only so long as necessary to remedy the discrimination at which they are aimed; they may not take on a life of their own. The numerical goals must be waivable if qualified minority applications are scarce, and such goals must bear a reasonable relation to minority percentages in the relevant qualified

¹⁰² *Concrete Works II*, 36 F.3d at 1520, 1530.

¹⁰³ *Engineering Contractors II*, 122 F.3d at 926.

¹⁰⁴ *Concrete Works IV*, 321 F.3d at 989.

¹⁰⁵ *United States v. Paradise*, 480 U.S. 149, 171 (1987); *see also Sherbrooke*, 345 F.3d at 971972; *Drabik*, 214 F.3d at 737-738.

labor pool, not in the population as a whole. Finally, the preferences may not supplant race-neutral alternatives for remedying the same discrimination.¹⁰⁶

1. Race- and Gender-Neutral Remedies

Race- and gender-neutral approaches have become a necessary component of a defensible and effective M/WBE program.¹⁰⁷ Such measures include unbundling of contracts into smaller units, providing technical support, and addressing issues of financing, bonding, and insurance important to all small and emerging businesses.¹⁰⁸ Difficulty in accessing procurement opportunities, restrictive bid specifications, excessive experience requirements, and overly burdensome insurance and/or bonding requirements, for example, might be addressed by the State without resort to using race or gender in its decision-making. Further, governments have a duty to ferret out and punish discrimination against minorities and women by their contractors, staff, lenders, bonding companies or others.¹⁰⁹ At a minimum, entities must track the utilization of M/WBE firms as a measure of their success in the bidding process, including as subcontractors.¹¹⁰

However, strict scrutiny does not require that every race-neutral approach must be implemented and then proven ineffective before race-conscious remedies may be utilized.¹¹¹ While an entity must give good faith consideration to race-neutral alternatives, “strict scrutiny does not require exhaustion of every possible such alternative...however irrational, costly, unreasonable, and unlikely to succeed such alternative might be.... [s]ome degree of practicality is subsumed in the exhaustion requirement.”¹¹²

2. Targeted Goal Setting

Numerical goals or benchmarks for M/WBE participation must be substantially related to their availability in the relevant market.¹¹³ It is settled case law that goals should reflect the particulars of the contract, not reiterate annual aggregate targets; goals must be contract specific. For example, in the second challenge to Baltimore’s M/WBE Program by the Associated Utility Contractors, the court specifically noted that the 2000 ordinance, in contrast to an earlier

¹⁰⁶ *Maryland Troopers Association, Inc. v. Evans*, 993 F.2d 1072, 1076-77 (4th Cir. 1993) (citations omitted).

¹⁰⁷ *Croson*, 488 U.S. at 507 (Richmond considered no alternatives to race-based quota); *Drabik*, 214 F.3d at 738; *Philadelphia III*, 91 F.3d at 609 (City’s failure to consider race-neutral alternatives was particularly telling); *Webster*, 51 F.Supp.2d at 1380 (for over 20 years County never seriously considered race-neutral remedies).

¹⁰⁸ See 49 CFR § 26.51.

¹⁰⁹ *Croson*, 488 U.S. at 503 n.3; *Webster*, 51 F.Supp.2d at 1380.

¹¹⁰ See, e.g., *Virdi v. DeKalb County School District*, 2005 U.S. App. LEXIS 11203 at n.8 (11th Cir. June 13, 2005).

¹¹¹ *Gutter*, 529 U.S. at 339.

¹¹² *Coral Construction*, 941 F.2d at 923.

¹¹³ *Webster*, 51 F.Supp.2d at 1379, 1381 (statistically insignificant disparities are insufficient to support an unexplained goal of 35 percent M/WBE participation in County contracts); see also *Associated Utility Contractors*, 83 F.Supp.2d at 621.

program struck down as unconstitutional, specifically requires that goals be set on a contract-by-contract and craft-by-craft basis.¹¹⁴

One unanswered question is whether goals or benchmarks for overall agency contracting may be set higher than estimates of actual current availability. To freeze the goals at current head counts would set the results of discrimination — depressed M/WBE availability — as the marker of the elimination of discrimination. It therefore should be reasonable for the government to seek to attempt to level the racial and gender playing field by setting targets somewhat higher than current headcount. For example, 49 C.F.R. Part 26¹¹⁵ requires recipients to determine the availability of DBEs in their marketplaces absent the presence of discrimination, that is, “but for” discrimination.¹¹⁶ In upholding the DBE regulations, the Tenth Circuit stated that

because Congress has evidence that the effects of past discrimination have excluded minorities from the construction industry and that the number of available minority subcontractors reflects that discrimination, the *existing* percentage of minority-owned businesses is not necessarily an absolute cap on the percentage that a remedial program might legitimately seek to achieve. Absolute proportionality to overall demographics is an unreasonable goal. However, *Croson* does not prohibit setting an aspirational goal above the current percentage of minority-owned businesses that is substantially below the percentage of minority persons in the population as a whole. This aspirational goal is reasonably construed as narrowly tailored to remedy past discrimination that has resulted in homogenous ownership within the industry. It is reasonable to conclude that allocating more than 95% of all federal contracts to enterprises owned by non-minority persons, or more than 90% of federal transportation contracts to enterprises owned by non-minority males, is in and of itself a form of passive participation in discrimination that Congress is entitled to seek to avoid. *See Croson*, 488 U.S. at 492 (Op. of O’Connor, J.).¹¹⁷

At least one court has recognized that goal setting is not an absolute science. In holding the DBE regulations to be narrowly tailored, the Eighth Circuit noted that “[t]hough the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in *Croson*. ”¹¹⁸ “On the other hand, sheer speculation cannot form the basis for an enforceable measure.”¹¹⁹

¹¹⁴ *Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore*, 218 F.Supp.2d 749, 751-52 (D. Md. 2002) (“*Baltimore II*”).

¹¹⁵ 49 CFR Part 26 governs New York’s receipt of U.S. Department of Transportation funds.

¹¹⁶ 49 CFR § 26.45.

¹¹⁷ *Adarand VII*, 228 F.3d at 1181 (emphasis in the original).

¹¹⁸ *Sherbrooke*, 345 F.3d at 972.

¹¹⁹ *Id.* (complete absence of evidence for 12-15 percent DBE goal); *see also BAGC v. Chicago*, 298 F.Supp.2d at 740 (City’s MBE and WBE goals were “formulistic” percentages not related to the availability of firms).

Goals can be set at various levels of particularity and participation. The entity may set an overall, aspirational goal for its annual, aggregate spending. Specific projects must be subject to subcontracting goals based upon availability of M/WBEs to perform the anticipated scopes of subcontracting. Not only is this legally mandated,¹²⁰ but also this approach reduces the need to conduct good faith efforts reviews as well as the temptation to create “front” companies and sham participation to meet unreasonable contract goals.

3. Flexibility of Goals and Requirements

It is imperative that remedies not operate as fixed quotas. A M/WBE program must provide for contract awards to firms who fail to meet the subcontracting goals but make good faith efforts to do so. Further, firms who meet the goals cannot be favored over those who made good faith efforts. In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT’s DBE program.¹²¹ This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.¹²²

4. Program Over-inclusiveness and Under-inclusiveness

The over- or under-inclusiveness of those persons to be included in any program is an additional consideration, and goes to whether the remedies truly target the evil identified.¹²³ The “fit” between the problem and the remedy manifests in three ways: which groups to include, how to define those groups, and which persons will be eligible to be included within those groups.

First, the groups to include must be based upon the evidence.¹²⁴ The “random inclusion” of ethnic or racial groups that may never have experienced discrimination in the entity’s marketplace may indicate impermissible “racial politics.”¹²⁵ Similarly, the Seventh Circuit, in striking down Cook County’s program, remarked that a “state or local government that has discriminated just against blacks may not by way of remedy discriminate in favor of blacks and Asian-Americans and women.”¹²⁶ However, at least one court has held some quantum of evidence of discrimination for each group is sufficient; *Croson* does not require that each group included in the ordinance suffer equally from discrimination.¹²⁷

¹²⁰ See *Sherbrooke*, 345 F.3d at 972; *Coral Construction*, 941 F.2d at 924.

¹²¹ 488 U.S. at 508; see also *Adarand VII*, 228 F.3d at 1181.

¹²² See, e.g., *Sherbrooke*, 345 F.3d at 972.

¹²³ *Association for Fairness in Business, Inc. v. New Jersey*, 82 F.Supp.2d 353, 360 (D.N.J. 2000).

¹²⁴ *Philadelphia II*, 6 F.3d at 1007 (strict scrutiny requires data for each minority group; data was insufficient to include Hispanics, Asians or Pacific Islanders or Native Americans); cf. *Northeastern Florida Chapter of the AGC v. Jacksonville*, 508 U.S. 656, 660-661 (1993) (new ordinance narrowed to Blacks and women).

¹²⁵ *Webster*, 51 F.Supp.2d at 1380–1381.

¹²⁶ *BAGC v. Cook County*, 256 F.3d at 646.

¹²⁷ *Concrete Work IV*, 321 F.3d at 9761.

The level of specificity at which to define beneficiaries is the next question. Approaches range from a single M/WBE or DBE goal that includes all racial and ethnic minorities and non-minority women,¹²⁸ to separate goals for each minority group and women.¹²⁹ Ohio's Program was specifically faulted for lumping together all "minorities," with the court questioning the legitimacy of forcing Black contractors to share relief with recent Asian immigrants.¹³⁰

Third, program remedies should be limited to those firms that have suffered actual harm. The DBE Program's rebuttable presumptions of social and economic disadvantage have been central to the courts' holdings that it is narrowly tailored. "While TEA-21 creates a rebuttable presumption that members of certain racial minorities fall within that class, the presumption is rebuttable, wealthy minority owners and wealthy minority-owned firms are excluded, and certification is available to persons who are not presumptively disadvantaged but can demonstrate actual social and economic disadvantage. Thus, race is made relevant in the program, but it is not a determinative factor."¹³¹ Moreover, anyone can challenge the disadvantage of any firm.¹³²

The U.S. Court of Appeals for the Second Circuit addressed an interesting permutation of this element of narrow tailoring. An Hispanic-owned firm whose owner was not Latin American challenged the State's limitation of MBE program eligibility to Hispanics from Latin America as violative of strict scrutiny. The court held that whether a race-conscious program is under-inclusive is subject only to rational basis scrutiny, not strict scrutiny.¹³³

We conclude that the narrow-tailoring requirement allows New York to identify which groups it is prepared to prove are in need of affirmative action without demonstrating conclusively that no other groups merit inclusion.... [T]he state need not bear the burden of persuasion to justify its decision not to extend affirmative action to other groups.... The plaintiffs, in effect, are asking us to declare that the fit in Article 15-A is too tight -- that equal protection requires it to be expanded to include other racial and ethnic groups that may have been discriminated against. Such a requirement would have no limit.... If it instituted any affirmative action program for some groups with a history of discrimination, the state would be required to prove a negative -- to show that no other group had also been discriminated against. We doubt that the Supreme Court had such

¹²⁸ See 49 CFR §26.45(h) (overall goal must not be subdivided into group-specific goals).

¹²⁹ See *Engineering Contractors II*, 122 F.3d at 900 (separate goals for Blacks, Hispanics and women).

¹³⁰ *Drabik*, 214 F.3d at 737; see also *Western States*, 407 F.3d at 998 ("We have previously expressed similar concerns about the haphazard inclusion of minority groups in affirmative action program ostensibly designed to remedy the effects of discrimination.").

¹³¹ *Sherbrooke*, 345 F.3d at 973; see also *Grutter*, 539 U.S. at 341; *Adarand VII*, 228 F.3d at 1183-1184 (personal net worth limit is element of narrow tailoring); cf. *Associated General Contractors v. City of New Haven*, 791 F.Supp. 941, 948 (D. Conn. 1992), *vacated on other grounds*, 41 F.3d 62 (2nd Cir. 1992) (definition of "disadvantage" was vague and unrelated to goal).

¹³² 49 CFR §26.87.

¹³³ *Jana-Rock Construction, Inc. v. New York State Department of Economic Development*, 438 F.3d 195 (2nd Cir. 2005).

court-ordered expansions of affirmative action programs in mind when it decided *Croson* and *Adarand*.¹³⁴

The court also rejected the argument that the exclusion of persons whose origins were in Spain violates strict scrutiny. While

the fact that a particular governmental decision to use classifications based on race or national origin in a particular context passes strict scrutiny does not relieve those categories of their possible arbitrariness and unreliability as bases for classifying specific individuals.... Once it has been established that the government is justified in resorting to the “highly suspect tool” of racial or national origin classifications, strict scrutiny has little utility in supervising the government's definition of its chosen categories. The purpose of the test is to ensure that the government's choice to use racial classifications is justified, not to ensure that the contours of the specific racial classification that the government chooses to use are in every particular correct.¹³⁵

Finally, the court held that there was no evidence of a discriminatory animus against Spanish speakers that would trigger strict scrutiny. “Without any indication of that sort of discriminatory purpose for the statute's exclusion of persons of Spanish descent, we evaluate the plaintiff's underinclusiveness claim using rational basis review.”¹³⁶ That judicial opinions, federal statutes, and federal regulations have declared that Hispanics in general have suffered discrimination; the plaintiff has had personal experiences with discrimination; and the State's 1994 study of discrimination included all Hispanics for some analyses, was not enough to render New York's decision discriminatory or irrational. “[I]t was not irrational for New York to conclude that Hispanics of Latin American origin were in greater need of remedial legislation.”¹³⁷

5. Sharing of the Burden by Third Parties

Failure to make “neutral” changes to contracting and procurement policies and procedures that disadvantage M/WBEs and other small businesses may result in a finding that the program unduly burdens non-M/WBEs.¹³⁸ However, “innocent” parties can be made to share some of the burden of the remedy for eradicating racial discrimination.¹³⁹ “Implementation of the race-

¹³⁴ *Id.* at 206-07.

¹³⁵ *Id.* at 210.

¹³⁶ *Id.* at 212.

¹³⁷ *Id.* at 214.

¹³⁸ See *Engineering Contractors Assoc. of South Florida, Inc. v. Metropolitan Dade County* (“*Engineering Contractors I*”), 943 F.Supp. 1546, 1581-1582 (S.D. Fla. 1996) (County chose not to change its procurement system).

¹³⁹ *Concrete Works IV*, 321 F.3d at 973; *Wygant*, 476 U.S. at 280-281; *Adarand VII*, 228 F.3 at 1183 (“While there appears to be no serious burden on prime contractors, who are obviously compensated for any additional burden occasioned by the employment of DBE subcontractors, at the margin, some non-DBE subcontractors such as *Adarand* will be deprived of business opportunities”); cf. *Northern Contracting II*, at *5 (“Plaintiff has presented little evidence that is [sic] has suffered anything more than minimal revenue losses due to the program.”).

conscious contracting goals for which TEA-21 provides will inevitably result in bids submitted by non-DBE firms being rejected in favor of higher bids from DBEs. Although this places a very real burden on non-DBE firms, this fact alone does not invalidate TEA-21. If it did, all affirmative action programs would be unconstitutional because of the burden upon non-minorities.”¹⁴⁰ Effective remedies are not costless.

6. Duration and Review of Programs

“Narrow tailoring also implies some sensitivity to the possibility that a program might someday have satisfied its purposes.”¹⁴¹ It was the unlimited duration and lack of review that led to the City of Augusta, Georgia’s DBE program’s being enjoined.¹⁴² Likewise, one of the factors leading to the court’s holding that the City of Chicago’s M/WBE Program was no longer narrowly tailored was the lack of a sunset provision.¹⁴³ As recently reiterated by the Eleventh Circuit Court of Appeals, the “unlimited duration of the [District’s] racial goals also demonstrates a lack of narrow tailoring....While the District’s effort to avoid unintentional discrimination should certainly be ongoing, its reliance on racial classifications should not.”¹⁴⁴ Similarly, the USDOT DBE Program’s periodic review by Congress has been repeatedly held to provide adequate durational limits.¹⁴⁵ Therefore, a sunset date and periodic review during the statute’s implementation are necessary to meet strict scrutiny.

D. Table of Authorities

1. Cases

Associated General Contractors, Inc. v. Coalition for Economic Equity, 950 F.2d 1401 (9th Cir. 1991).

Adarand Constructors, Inc. v. Peña, 515 U.S. 200 (1995) (“*Adarand III*”).

Adarand Constructors, Inc. v. Peña, 965 F. Supp. 1556 (D. Colo. 1997), *rev’d*, 228 F.3d 1147 (2000).

Adarand Constructors, Inc. v. Slater, 228 F.3d 1147 (10th Cir. 2000), *cert. granted then dismissed as improvidently granted*, 532 U.S. 941, 534 U.S. 103 (2001) (“*Adarand VII*”).

¹⁴⁰ *Western States*, 407 F.3d at 995.

¹⁴¹ *Drabik*, 214 F.3d at 737.

¹⁴² *Thompson Building Wrecking Co., Inc. v. City of Augusta, Georgia*, 2007 U.S. Dist. Lexis 27127 (S.D. Ga. 2007) at *22-23.

¹⁴³ *BAGC v. Chicago*, 298 F.Supp.2d at 739; *see also Webster*, 51 F. Supp. 2d at 1382 (one of Fulton County’s telling disqualifiers was that it had been implementing a “quota” program since 1979 with no contemplation of program expiration).

¹⁴⁴ *Virdi*, at *18.

¹⁴⁵ *See Western States*, 407 F.3d at 995.

Associated General Contractors of Ohio v. Drabik, 214 F.3d 730 (6th Cir. 2000).

Association for Fairness in Business, Inc. v. New Jersey, 82 F.Supp.2d 353 (D. N.J. 2000).

Associated General Contractors v. City of New Haven, 791 F.Supp. 941 (D. Conn. 1992).

Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore et al, 83 F.Supp.2d 613 (D. Md. 2000) (“*Baltimore I*”).

Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore, 218 F.Supp.2d 749 (D. Md. 2002) (“*Baltimore II*”).

Brunet v. City of Columbus, 1 F.3d 390 (6th Cir. 1993).

Builders Association of Greater Chicago v. City of Chicago, 298 F. Supp.2d 725 (N.D. Ill. 2003).

Builders Association of Greater Chicago v. County of Cook, 123 F.Supp.2d 1087 (N.D. Ill. 2000); *aff’d*, 256 F.3d 642 (7th Cir. 2001).

City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989).

Concrete Works of Colorado, Inc. v. City and County of Denver, 36 F.3d 1513 (10th Cir. 2003) (“*Concrete Works II*”).

Concrete Works of Colorado, Inc. v. City and County of Denver, 321 F.3d 950, *cert. denied*, 540 U.S. 1027 (2003) (10th Cir. 2003) (“*Concrete Works IV*”).

Cone Corporation v. Hillsborough County, 908 F.2d 909 (11th Cir. 1990).

Contractors Association of Eastern Pennsylvania v. City of Philadelphia, 6 F.3d 990 (3rd Cir. 1993) (“*Philadelphia I*”).

Contractors Association of Eastern Pennsylvania v. City of Philadelphia, 91 F.3d 586 (3rd Cir. 1996) (“*Philadelphia III*”).

Coral Construction Co. v. King County, 941 F.2d. 910 (9th Cir. 1991).

Engineering Contractors Assoc. of South Florida, Inc. v. Metropolitan Dade County, 943 F.Supp. 1546 (S.D. Fla. 1996) (“*Engineering Contractors I*”).

Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County, 122 F.3d 895 (11th Cir. 1997) (“*Engineering Contractors II*”).

GEOD Corp. v. New Jersey Transit Corp., 2009 U.S. Dist. Lexis 74120, *11 (D. N. J. Aug. 20, 2009),.

Gratz v. Bollinger, 539 U.S. 244 (2003).

Grutter v. Bollinger, 539 U.S. 306 (2003).

International Brotherhood of Teamsters v. United States, 431 U.S. 324, 399 (1977).

Jana-Rock Construction, Inc. v. New York State Department of Economic Development, 438 F.3d 195 (2nd Cir. 2005).

Maryland Troopers Association, Inc. v. Evans, 993 F.2d 1072, 1076-77 (4th Cir. 1993).

Northeastern Florida Chapter of the AGC v. Jacksonville, 508 U.S. 656 (1993).

Northern Contracting, Inc. v. Illinois Department of Transportation, 2004 U.S. Dist. LEXIS, 3226 (N.D. Ill., Mar. 3, 2004) (“*Northern Contracting I*”).

Northern Contracting, Inc. v. Illinois Department of Transportation, 2005 U.S. Dist. LEXIS 19868 (Sept. 8, 2005) (“*Northern Contracting II*”).

Northern Contracting, Inc. v. Illinois Department of Transportation, 473 F.3d 715 (7th Cir. 2007) (7th Cir. 2007) (“*Northern Contracting III*”).

O'Donnell Construction Co., Inc. v. District of Columbia, 963 F.2d 420 (D.C. Cir. 1992).

Rothe Development Corp. v. U.S. Department of Defense et al, 499 F.Supp.2d 775, 847 (W.D. Tex. 2007) (“*Rothe VI*”).

Rothe Development Corporation v. U.S. Department of Defense, 545 F.3d 1023 (*Fed. Cir.* 2008) (“*Rothe VII*”).

Sherbrooke Turf, Inc. v. Minnesota Department of Transportation, 345 F.3d 964 (8th Cir. 2003), *cert. denied*, 124 S.Ct. 2158 (2004).

Thompson Building Wrecking Co., Inc. v. City of Augusta, Georgia, 2007 U.S. Dist. Lexis 27127 (S.D. Ga. 2007).

United States v. Paradise, 480 U.S. 149 (1987).

United States v. Virginia, 518 U.S. 515 (1996).

Virdi v. DeKalb County School District, 2005 U.S. App. LEXIS 11203 (11th Cir. 2005).

W.H. Scott Construction Co., Inc. v. City of Jackson, 199 F.3d 206 (5th Cir. 1999).

Webster v. Fulton County, Georgia, 51 F.Supp.2d 1354 (N.D. Ga. 1999).

Western States Paving Co., Inc. v. Washington Department of Transportation, 407 F.3d 983 (9th Cir. 2005), *cert. denied*, 126 S.Ct. 1332 (2006).

Wygant v. Jackson Board of Education, 476 U.S. 267 (1986).

2. Statutes

Transportation Equity Act for the 21st Century (“TEA-21”), Pub. L. No. 105-178 (b)(1), 112 Stat. 107, 113.

3. Regulations

49 C.F.R. Part 26.

4. Reports

Bourdon, Clinton C. and Raymond E. Levitt. 1980. *Union and open-shop construction, compensation, work practices, and labor markets*. Lexington Books: Lexington, Massachusetts.

Eccles, Robert G. 1981. “Bureaucratic versus Craft Administration: The Relationship of Market Structure to the Construction Firm.” *Administrative Science Quarterly*. 26.

Enchautegui, Maria E., Michael Fix, Pamela Loprest, Sarah von der Lippe, Douglas Wissoker. 1996. *Do minority-owned businesses get a fair share of government contracts?* Washington, DC.: The Urban Institute.

Gould, Frederick Elliot. 1980. “Investigation in Construction Entrepreneurship” Masters Thesis, MIT, May.

Wainwright, Jon S. 2000. *Racial discrimination and minority business enterprise, evidence from the 1990 Census*, *Studies in Entrepreneurship Series*. Edited by S. Bruchey. New York, Garland Publishing.

III. Defining the Relevant Markets

A. Preparing the Master Contract/Subcontract Database

The U.S. Supreme Court in *Croson* indicated that the U.S. Congress' *national* findings of minority business discrimination in construction and related industries were not specific enough, standing alone, to support a MBE program in the City of Richmond. According to the Court, "[t]he probative value of these findings for demonstrating the existence of discrimination in Richmond is extremely limited."¹⁴⁶ To support its conclusion, the Court noted that the federal DBE program, by including waivers and other provisions whereby DBE affirmative action requirements could be relaxed under certain conditions, "explicitly recognized that the scope of the problem would vary from market area to market area."¹⁴⁷

The first step, therefore, in our evaluation of M/WBE availability and participation for NYS must be to define the relevant market area for its Construction, Construction-related Professional Services, Services, and Commodities procurement.¹⁴⁸ Markets have both a product and a geographic dimension, both of which are considered.¹⁴⁹ For this Study, we define the State's market area based on its own historical contracting and subcontracting records. We define the geographic market dimension by calculating from zip code data where the majority of the State's contractors and subcontractors are located, and we define the product market dimension by estimating which North American Industrial Classification System (NAICS) codes best describe each identifiable contractor, subcontractor, subconsultant, or supplier in those records.¹⁵⁰ In both cases, the definitions are weighted according to how many dollars were spent with firms from each NAICS code so that industries receiving relatively more contracting dollars receive relatively more weight in the estimation of M/WBE availability. Once the geographic and industry parameters of the State's market area have been defined, we can restrict our subsequent analyses to business enterprises and other phenomena within this market area. Restricting our analyses in this manner narrowly tailors our findings to the State's specific market area and contracting circumstances.

¹⁴⁶ *Croson*, 488 U.S. at 504.

¹⁴⁷ *Id.* Since *Croson* concerned a challenge to local program while *Fullilove* concerned a challenge to a federal program, the *Croson* ruling did not directly affect the federal government's array of DBE programs. In the summer of 1995, a 5-4 Supreme Court majority in *Adarand* extended strict scrutiny to the federal government as well, thus formally overturning the *Fullilove* decision.

¹⁴⁸ Although Part 26 and Part 23 do not require that recipients establish the presence of discrimination in their individual markets, determining M/WBE availability and utilization are necessary to narrowly tailor their programs. See 49 CFR § 26.45(c).

¹⁴⁹ See, for example, Areeda, Phillip, and Louis Kaplow, *Antitrust Analysis: Problems, Text, Cases*, New York: Aspen Publishers, 6th Edition, 2004.

¹⁵⁰ Executive Office of the President, Office of Management and Budget, *North American Industrial Classification system: United States, 2007I*, Lanham, MD: Bernan, 2007.

1. New York State Contracting and Procurement

With assistance from the Department of Economic Development and the State Comptroller, NERA collected contract and purchase order data for the State's Construction, Construction-related professional services ("CRS"),¹⁵¹ Other Professional and General Services ("Services"), and Commodities, Supplies, and Equipment contracts ("Commodities") that were active between April 2003 and March 2008 (SFY 2004–2008).¹⁵²

For each contract or purchase order from the study period, we obtained available data from the State including the prime contractor name and address, contract or purchase description, contract or purchase order number, contractor gender and ethnicity, contract award or purchase date, and total contracted dollar amount. For subcontractors, we worked with the State to obtain all missing subcontractor information from the relevant prime contractors or vendors. Information collected included subcontractor name and address, subcontractor gender and ethnicity, final award amount, and final amount paid.

We restricted our analysis to NYS contracts and purchase orders of \$50,000 or more; and in the case of construction contracts, of \$100,000 or more.¹⁵³ During the five-year study period, there were 28,735 such contracts or purchase orders, as shown below:¹⁵⁴

¹⁵¹ Construction-related professional services includes engineering services, architectural services, construction management services, testing services, environmental consulting services, and other construction-related consulting services.

¹⁵² Thus, the study also includes contracts that were initiated in prior to April 2003 and still active as of that time.

¹⁵³ Article 15-A covers contracts and purchases of \$25,000 or more. For construction, Article 15-A covers contracts of \$100,000 or more. We did not attempt to obtain subcontract information for contracts under \$50,000, as such contracts tend to have a low likelihood of significant subcontract activity. Article 15-A also does not apply to contracts with other public entities, contracts with non-profit entities, revenue contracts, contracts involving the leasing or acquisition of real property, and certain grants; and these contracts were also excluded from the study where they could be identified as such. Finally, although contracts for Banking, Insurance, and other Financial Services were not covered by Article 15-A during the study period. However, these contracts were retained in the study at the request of the State, in anticipation of an amendment to Article 15-A effective March 1, 2010 that includes these services.

¹⁵⁴ The second row of figures within each procurement category are the row percentages. For example, In Construction, 90.61 percent of records were in the sample universe and 9.39 percent were not. The third row are column percentages. For example, of the records in the sample universe, 57.15 percent are in Construction, 12.19 percent are in CRS, *etc.*

Table 3.A. Distribution of State Contracts and Purchase Orders by Procurement Category and Subcontractable Opportunities

Procurement Category	In Sample Universe		Total
	NO	YES	
CONSTRUCTION	618	5,965	6,583
	9.39	90.61	100.00
	3.38	57.15	22.91
CRS	189	1,272	1,461
	12.94	87.06	100.00
	1.03	12.19	5.08
SERVICES	1,203	3,200	4,403
	27.32	72.68	100.00
	6.57	30.66	15.32
COMMODITIES	16,288	0	16,288
	100.00	0.00	100.00
	89.02	0.00	56.68
Total	18,298	10,437	28,735
	63.68	36.32	100.00
	100.00	100.00	100.00

Of these, 56.7 percent were for Commodities, which typically do not have subcontracting opportunities. The remaining 43.3 percent (*i.e.* purchases in Construction, CRS, and Services) do typically have subcontracting opportunities. As shown above, 22.9 percent were for Construction; 5.1 percent were for CRS; and 15.3 percent were for Services.

The State has not maintained the records of subcontracting activity during the study period sufficient for the disparity study assessment, particularly in the case of non-M/WBE subcontractors. It was therefore necessary to select a statistically representative sample of the State's prime contractors, consultants, and vendors in the procurement categories of Construction, CRS, and Services to obtain this missing information. Commodities were not included in the sample since they typically do not have subcontracting opportunities.

The table above shows that 10,437 of the 28,735 State contracts and purchase orders during the study period had subcontracting opportunities.¹⁵⁵ In other words, these contracts and purchase orders were "In the Sample Universe." The remaining 18,298 contracts and purchase orders, the bulk of which were for Commodities, were not in the sample universe. This does not mean these contracts were not studied, only that no subcontracting information had to be collected from the prime contractors and vendors for these contracts and purchase orders.

These 10,437 contracts and purchase orders had a total awarded value of \$37.11B, and it was from this group of contracts and purchase orders that we drew our sample. We sampled the

¹⁵⁵ The vast majority of contracts and purchase orders without subcontract opportunities were in the Commodities category. As shown in the table, however, a portion of contracts in the other categories were also deemed to have no subcontract opportunities. These include items such as temporary staffing contracts and contracts with single individuals. As shown in the table above, such contracts account for 3.4 percent of Construction contracts, 1.0 percent of CRS contracts, and 6.6 percent of Services contracts.

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largest contracts and purchase orders with certainty, and sampled smaller contracts and purchase orders randomly with replacement¹⁵⁶ across state agencies and institutions of higher education. The sample drawn included 2,037 of the 10,437 contracts and purchase orders in the sample universe, or 20 percent of the total; and \$29.63B of \$37.11B dollars, or 80 percent of the total.

A comparably sized sample of Commodities contracts, small contracts, and other contracts with a low likelihood of subcontracting activity was created from the remaining 18,298 contracts and purchase orders and included in the final file for study analysis. These 18,298 contracts and purchase orders had a total awarded value of \$12.51B. Our sample from this group included 2,844 records, or 16 percent of the total; and \$9.80B of \$12.51B dollars, or 78 percent of the total.

The following agencies and sub-agencies were represented in the study:¹⁵⁷

Table 3.B. Agencies and Sub-Agencies Included in the Study

DEPARTMENT OF CIVIL SERVICE
DEPARTMENT OF TAXATION & FINANCE
DEPARTMENT OF TRANSPORTATION
DEPT OF TEMPORARY & DISABILITY ASSISTANCE
DIVISION OF THE LOTTERY
NEW YORK STATE THRUWAY AUTHORITY
NYS POWER AUTHORITY
OFFICE FOR TECHNOLOGY
OFFICE OF GENERAL SERVICES
STATE UNIVERSITY CONSTRUCTION FUND
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DEPARTMENT OF HEALTH
DEPARTMENT OF HEALTH
HELEN HAYES HOSPITAL
VETERANS' HOME AT SAINT ALBANS
NYS VETERAN'S HOME-MONTROSE
VETERANS' HOME AT OXFORD
WESTERN NEW YORK VETERANS' HOME AT BATA
METROPOLITAN TRANSPORTATION AUTHORITY
MTA NYC TRANSIT
MTA LONG ISLAND RR
MTA METRO-NORTH RR
MTA BRIDGES & TUNNELS
MTA HEADQUARTERS
MTA LONG ISLAND BUS
MTA CAPITAL CONSTRUCTION

¹⁵⁶ "With replacement" means that it is possible for a given purchase order to be included in the sample more than once. In the present context, sampling with replacement has certain desirable statistical properties that sampling without replacement lacks. Fifteen purchases orders were included twice and three purchase orders were included three times.

¹⁵⁷ A complete list of State Agencies, Authorities, and Other Budget Entities subject to Article 15-A appears below in Appendix B.

Table 3.B. Agencies and Sub-Agencies Included in the Study, Cont'd

STATE UNIVERSITY OF NEW YORK

STONY BROOK
 HEALTH SCI CENTER AT SYRACUSE
 HEALTH SCI CENTER AT BROOKLYN
 ALBANY
 COLLEGE AT BUFFALO
 COLLEGE AT MORRISVILLE
 SUNY AT BUFFALO
 COLLEGE AT CORTLAND
 COLLEGE AT POTSDAM
 COLLEGE AT OSWEGO
 COLLEGE OF TECHNOLOGY AT ALFRED
 COLLEGE AT FREDONIA
 BINGHAMTON
 COLLEGE AT ONEONTA
 COLLEGE AT NEW PALTZ
 BROCKPORT
 COLLEGE OF TECHNOLOGY AT CANTON
 COLLEGE AT GENESEO
 COLLEGE AT PLATTSBURGH
 COLLEGE AT PURCHASE
 SUNY ALL STATE OPERATED COLLEGES AND SCHOOLS
 COLLEGE OF AGRICULTURE AND TECHNOLOGY A COBLESKILL
 SUNY CENTRAL ADMIN
 COLLEGE AT OLD WESTBURY
 COLLEGE OF TECHNOLOGY AT DELHI
 COLLEGE OF TECHNOLOGY AT FARMINGDALE
 COLLEGE OF OPTOMETRY
 EMPIRE STATE COLLEGE
 MARITIME COLLEGE
 COLLEGE OF ENVIRONMENTAL SCIENCE & FORESTRY
 FIDUCIARY STUDENT LOANS-FED AND STATE

DEPARTMENT OF CORRECTIONAL SERVICES

DEPARTMENT OF CORRECTIONAL SERVICES
 ADIRONDACK CORRCTIONAL FACILITY
 ALBION CORRECTIONAL FACILITY
 ALTONA CORRECTIONAL FACILITY
 ARTHUR KILL CORRECTIONAL FACILITY
 ATTICA CORR FACILITY
 AUBURN CORR FACILITY
 BARE HILL CORRECTIONAL FACILITY
 BAYVIEW CORRECTIONAL FACILITY
 BEACON CORRECTIONAL FACILITY
 BEDFORD HILLS CORRECTIONAL FACILITY
 BUFFALO CORRECTIONAL FACILITY
 BUTLER CORRECTIONAL FACILITY
 CAMP GABRIELS CORRECTIONAL FACILITY
 CAMP GEORGETOWN CORRECTIONAL FACILITY
 CAMP PHARSALIA CORRECTIONAL FACILITY
 CAPE VINCENT CORRECTIONAL FACILITY
 CAYUGA CORRECTIONAL FACILITY
 CENTRAL OFFICE MEDICAL BILL PAYING UNIT
 CENTRAL PHARMACY
 CHATEAUGAY ALCOHOL SUBSTANCE ABUSE CORR
 CLINTON CORRECTIONAL FACILITY
 COLLINS CORRECTIONAL FACILITY
 COXSACKIE CORR FACILITY
 DOWNSTATE CORRECTIONAL FACILITY
 EASTERN CORRECTIONAL FACILITY
 EDGECOMBE CORRECTIONAL FACILITY
 ELMIRA CORR & RECEPTION CTR
 FISHKILL CORRECTIONAL FACILITY

DEPARTMENT OF CORRECTIONAL SERVICES, CONT'D

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FIVE POINTS CORRECTIONAL FACILITY
 FRANKLIN CORRECTIONAL FACILITY
 FULTON CORRECTIONAL FACILITY
 GOUVERNEUR CORRECTIONAL FACILITY
 GOWANDA CORRECTIONAL FACILITY
 GREAT MEADOW CORR FACILITY
 GREEN HAVEN CORR FACILITY
 GREENE CORRECTIONAL FACILITY
 GROVELAND CORRECTIONAL FACILITY
 HALE CREEK ALCOHOL SUBSTANCE ABUSE TREA
 HUDSON CORRECTIONAL FACILITY
 LAKEVIEW SHOCK INCARCERATION CORR FAC
 LINCOLN CORRECTIONAL FACILITY
 LIVINGSTON CORRECTIONAL FACILITY
 LYON MOUNTAIN CORRECTIONAL FACILITY
 MARCY CORRECTIONAL FACILITY
 MID-ORANGE CORRECTIONAL FACILITY
 MID-STATE CORRECTIONAL FACILITY
 MOHAWK CORRECTIONAL FACILITY
 MONTEREY SHOCK INCARCERATION CORRECTION
 MORIAH SHOCK INCARCERATION CORRECTIONAL
 MT. MCGREGOR CORRECTIONAL FACILITY
 OGDENSBURG CORRECTIONAL FACILITY
 ONEIDA CORRECTIONAL FACILITY
 ORLEANS CORRECTIONAL FACILITY
 OTISVILLE CORRECTIONAL FACILITY
 QUEENSBORO CORRECTIONAL FACILITY
 RIVERVIEW CORRECTIONAL FACILITY
 SHAWANGUNK CORRECTIONAL FACILITY
 SING SING CORRECTIONAL FACILITY
 SOUTHPORT CORRECTIONAL FACILITY
 SULLIVAN CORRECTIONAL FACILITY
 SUMMIT SHOCK INCARCERATION CORRECTIONAL
 TACONIC CORRECTIONAL FACILITY
 ULSTER CORRECTIONAL FACILITY
 UPSTATE CORRECTIONAL FACILITY
 WALLKILL CORRECTIONAL FACILITY
 WASHINGTON CORRECTIONAL FACILITY
 WATERTOWN CORRECTIONAL FACILITY
 WENDE CORRECTIONAL FACILITY
 WILLARD DRUG TREATMENT CENTER
 WOODBOURNE CORRECTIONAL FACILITY
 WYOMING CORRECTIONAL FACILITY

After an intensive data collection effort and with the assistance of select state personnel at the represented agencies, we were ultimately able to obtain the associated subcontract information for 1,583 prime contracts, or 78 percent of the total prime contracts sampled, and 14,755 associated subcontracts. The total dollar value of the 1,583 prime contracts and their associated subcontracts was \$23.45B, or 79 percent of all dollars in the sample. These percentages are sufficiently large to be well representative of the entire universe of contracts and subcontracts being examined for this study. As mentioned above, we included an additional 2,844 contracts and purchase orders worth \$9.80B to represent Commodities purchasing and other areas with a low likelihood of subcontracting activity.¹⁵⁸

¹⁵⁸ Additionally, 191 prime contracts and 134 subcontracts were added because contracts were sampled with replacement, meaning it was possible that some contracts were included in the sample more than once.

Therefore, the final sample of contracts and subcontracts to be used for the study contains 4,618 contracts and purchase orders and 14,889 associated subcontracts, with a total dollar value of \$33.3B.

Together, as shown below in Tables 3.1 and 3.2, these prime contracts and subcontracts comprise the Master Contract/Subcontract Database compiled for this Study. Table 3.1 shows total number of prime contracts, subcontracts, and contract dollars awarded, by major procurement category. Table 3.2 shows the total number of prime contracts awarded during each year of the study period and total dollar awards associated with those contracts, by major procurement category. Table 3.3 shows a similar distribution among the State agencies included in the study.

B. Geographic Market Definition for Contracting and Procurement

To determine the geographic dimension of the State's contracting and procurement markets, we used the Master Contract/Subcontract Database, as described in the previous section, to obtain the zip codes and thereby the county and state for each contractor and subcontractor identified in our sample. Using this location information, we then calculated the percentage of NYS contract and subcontract dollars awarded to businesses by state, metropolitan area, and county during the study period.

As discussed above, the geographic market area is defined as that region which accounts for at least 75 percent of overall contracting and procurement spending by a given government entity. Contractors located within the State of New York or within the balance of the New York, Northern New Jersey, Long Island, NY-NJ-CT-PA Consolidated Metropolitan Statistical Area (CMSA) account for the vast majority of contracting and procurement expenditures by NYS and its prime contractors during the study period.

As shown in Table 3.4, the overall share of expenditures inside this market area is 80.6 percent of dollars awarded and 81.3 percent of dollars paid. The share is highest in CRS (97.0 and 96.9 percent, respectively) and lowest in Services (75.2 and 74.7 percent, respectively). For purposes of this Study, we therefore define the primary geographic market area to be the State of New York and the New York-Northern New Jersey-Long Island, NY-NJ-CT-PA CMSA.¹⁵⁹

Within the market area, the geographic distribution of contract and procurement dollars across all procurement categories is shown in the following table.

¹⁵⁹ The New York-Northern New Jersey-Long Island, NY-NJ-CT-PA CMSA includes, in descending order according to general population size, Kings County, NY; Queens County, NY; New York County, NY; Suffolk County, NY; Nassau County, NY; Bronx County, NY; Westchester County, NY; Bergen County, NJ; Essex County, NJ; Middlesex County, NJ; Litchfield County, CT; Monmouth County, NJ; Hudson County, NJ; Union County, NJ; Ocean County, NJ; New Haven County, CT; Passaic County, NJ; Morris County, NJ; Richmond County, NY; Mercer County, NJ; Orange County, NY; Somerset County, NJ; Rockland County, NY; Dutchess County, NY; Fairfield County, CT; Sussex County, NJ; Hunterdon County, NJ; Warren County, NJ; Putnam County, NY; and Pike County, PA.

Defining the Relevant Markets

Table 3.C. Distribution of Prime Contracts and Subcontracts Award Dollars by State and County, 2004-2008

STATE	COUNTY	AMOUNT	PERCENT OF SPENDING IN MARKET AREA	CUMULATIVE PERCENT OF SPENDING IN MARKET AREA
NY	New York	\$10,169,957,670	37.9%	37.9%
NY	Albany	\$2,451,197,650	9.1%	47.0%
NY	Queens	\$1,562,623,531	5.8%	52.8%
NY	Westchester	\$1,429,270,443	5.3%	58.2%
NY	Onondaga	\$954,586,897	3.6%	61.7%
NY	Erie	\$923,967,650	3.4%	65.2%
NY	Bronx	\$855,819,499	3.2%	68.3%
NY	Nassau	\$820,461,484	3.1%	71.4%
NY	Oneida	\$800,421,130	3.0%	74.4%
NY	Monroe	\$757,315,343	2.8%	77.2%
NY	Suffolk	\$655,693,985	2.4%	79.6%
NY	Saratoga	\$505,594,029	1.9%	81.5%
NY	Kings	\$431,228,425	1.6%	83.1%
NJ	Bergen	\$315,868,932	1.2%	84.3%
NY	Schenectady	\$269,043,452	1.0%	85.3%
NY	Broome	\$244,877,310	0.9%	86.2%
NY	New York	\$242,248,442	0.9%	87.1%
NY	Bronx	\$228,173,272	0.9%	88.0%
NY	Rensselaer	\$202,984,968	0.8%	88.7%
NJ	Morris	\$170,427,671	0.6%	89.4%
NJ	Hudson	\$161,459,103	0.6%	90.0%
NY	Ulster	\$138,476,545	0.5%	90.5%
NY	Schoharie	\$132,699,388	0.5%	91.0%
NJ	Somerset	\$123,091,862	0.5%	91.4%
NY	Ontario	\$121,865,667	0.5%	91.9%
NY	Orange	\$118,952,633	0.4%	92.3%
CT	Fairfield	\$117,953,077	0.4%	92.8%
NJ	Monmouth	\$112,836,686	0.4%	93.2%
NJ	Middlesex	\$98,268,639	0.4%	93.6%
NJ	Mercer	\$93,013,973	0.4%	93.9%
NY	Livingston	\$91,216,212	0.3%	94.2%
NY	Otsego	\$89,344,706	0.3%	94.6%
NY	Chemung	\$82,265,388	0.3%	94.9%
NJ	Essex	\$73,942,368	0.3%	95.2%
NY	Rockland	\$68,569,290	0.3%	95.4%
NY	Bronx	\$66,837,058	0.3%	95.7%
NY	Herkimer	\$65,962,426	0.3%	95.9%
NY	Warren	\$65,740,002	0.2%	96.2%
NY	Dutchess	\$64,519,398	0.2%	96.4%
NY	Madison	\$62,769,753	0.2%	96.6%
NJ	Union	\$59,112,514	0.2%	96.8%
NJ	Passaic	\$56,533,374	0.2%	97.1%
CT	New Haven	\$55,121,001	0.2%	97.3%
NY	Steuben	\$54,688,176	0.2%	97.5%
NY	Niagara	\$48,578,602	0.2%	97.6%
NY	Clinton	\$43,264,013	0.2%	97.8%
NY	Cortland	\$42,886,401	0.2%	98.0%

STATE	COUNTY	AMOUNT	PERCENT OF SPENDING IN MARKET AREA	CUMULATIVE PERCENT OF SPENDING IN MARKET AREA
NY	Queens	\$39,660,458	0.2%	98.1%
NY	Richmond	\$35,963,538	0.1%	98.3%
NY	Tompkins	\$35,735,466	0.1%	98.4%
NY	Sullivan	\$35,152,475	0.1%	98.5%
NY	Greene	\$34,234,844	0.1%	98.6%
NY	Orleans	\$28,149,360	0.1%	98.7%
NY	Oswego	\$26,708,015	0.1%	98.8%
Balance (37 counties)		\$310,838,263	1.2%	100.0%

Outside the market area, regions with a significant amount of spending activity included:¹⁶⁰

CONSTRUCTION

Allegheny County, PA;
Jefferson County, KY;
Northampton County, PA;
Plymouth County, MA; and
Worcester County, MA.

CRS

Allegheny County, PA;
St. Louis County, MO; and
Middlesex County, MA.

SERVICES

Cook County, IL
Milwaukee County, WI
Washtenaw County, MI
St. Louis County, MO; and
Philadelphia County, PA.

COMMODITIES

Allegheny County, PA;
Cook County, IL;
San Mateo County, CA;
St. Louis County, MO;
Baltimore County, MD;
Fulton County, GA;
Middlesex County, MA;
Lake County, IL;
Montgomery County, PA;
Hennepin County, MN;
Mecklenburg County, NC;
Dallas County, TX;
Hillsborough County, NH;
Hartford County, CT;
Montgomery County, OH;
Ramsey County, MN; and
Berks County, PA.

¹⁶⁰ We define “significant” here, somewhat arbitrarily, as counties or countries that accounted for more than approximately 0.25% of total spending among three or more vendors.

C. Product Market Definition for Contracting and Procurement

Using the major procurement categories for each prime contract and the primary NAICS codes assigned by NERA to each prime contractor and subcontractor in the Master Contract/Subcontract Database, we identified the most important Industry Sub-sectors within each contracting and procurement category, as measured by totals dollars awarded.¹⁶¹

The relevant NAICS codes and their associated dollar weights appear below in Tables 3.5 through 3.8, for Construction, CRS, Services, and Commodities, respectively. These four main procurement categories (Construction, CRS, Services, and Commodities) were assigned based on the State's own prime contract data for the study period. It is clear from these four tables that, although numerous Industry Sub-sectors play a role in the State's contracting activities, actual contracting and subcontracting opportunities are not distributed evenly among them. The distribution of contract expenditures is, in fact, highly skewed.

In Construction, for example, we see from Table 3.5 that one Industry Sub-sector alone (NAICS 238) accounts for two-fifths of all contract spending spent and four Sub-sectors account for over 90 percent, with the remaining 10 percent distributed among 56 additional Industry Sub-sectors. In CRS (Table 3.6), we see an even more concentrated pattern—one Industry Sub-sector (NAICS 541) accounts for 69 percent of all contract spending. In Services, one Sub-sector (NAICS 424) accounts for 63 percent of all contract spending and six Sub-sectors together account over 90 percent. In Commodities, two Sub-sectors account for more than 40 percent of all spending and six Sub-sectors together account for almost 75 percent.

Each Industry Sub-sector (three-digit NAICS) identified in Tables 3.5 through 3.8 consists of several more detailed Industry Groups (four-digit NAICS) and Industries (five-digit and six-digit NAICS). Overall, NYS contracting expenditures in our sample occur in 76 NAICS Industry Sub-sectors, 212 NAICS Industry Groups, and 484 NAICS Industries.

In Construction, NYS contract spending occurs across 61 NAICS Industry Sub-sectors, 154 NAICS Industry Groups, and 316 NAICS Industries. In CRS, NYS contract spending occurs across 38 NAICS Industry Sub-sectors, 76 NAICS Industry Groups, and 113 NAICS Industries. In Services, NYS contract spending occurs across 68 NAICS Industry Sub-sectors, 148 NAICS Industry Groups, and 256 NAICS Industries. In Commodities, NYS contract spending occurs across 60 NAICS Industry Sub-sectors, 154 NAICS Industry Groups, and 288 NAICS Industries.

The resulting percentage weights from these NAICS Industries are used below in Chapter IV to calculate average M/WBE availability figures for Construction, CRS, Services, and Commodities.¹⁶²

Now that the geographic and industry parameters of the State's contracting and procurement market area have been established, we will restrict our subsequent analyses, in Chapter IV and beyond, to business enterprises and other phenomena within this specific market area so as to narrowly tailor our findings to the State's specific contracting circumstances.

¹⁶¹ Calculations were also made using dollars paid as the measure. The results, not shown here, were very similar.

¹⁶² After re-normalizing the percentage weights to sum to 100.

D. Tables**Table 3.1. Summary of Master Contract/Subcontract Database: Prime Contracts and Subcontracts by Procurement Category, 2004-2008**

CONTRACT CATEGORY	NUMBER OF CONTRACTS	DOLLARS AWARDED	DOLLARS PAID
<i>CONSTRUCTION</i>		7,901,356,795	7,579,828,524
<i>Prime Contracts</i>	1,029	4,743,872,407	4,411,421,089
<i>Subcontracts</i>	12,309	3,157,484,389	3,168,407,435
<i>CRS</i>		1,067,335,628	897,855,068
<i>Prime Contracts</i>	465	805,159,868	713,433,024
<i>Subcontracts</i>	1,547	262,175,760	184,422,044
<i>SERVICES</i>		14,703,277,248	14,313,283,964
<i>Prime Contracts</i>	768	11,035,249,183	10,652,706,336
<i>Subcontracts</i>	1,019	3,668,028,065	3,660,577,629
<i>COMMODITIES</i>		9,620,367,432	6,972,793,780
<i>Prime Contracts</i>	2,355	9,620,367,432	6,972,793,780
<i>Subcontracts</i>	0	0	0
<i>GRAND TOTAL</i>		33,297,297,342	29,768,716,475
<i>Prime Contracts</i>	4,618	26,205,746,002	22,751,366,769
<i>Subcontracts</i>	14,889	7,091,551,340	7,017,349,706

Source: NERA calculations from Master Contract/Subcontract Database. Note: Prime Contract dollar amounts are net of subcontract amounts.

Defining the Relevant Markets

Table 3.2. Summary of Master Contract/Subcontract Database: Prime Contracts by Year of Award

PROCUREMENT CATEGORY & YEAR OF AWARD	NUMBER OF PRIME CONTRACTS	DOLLARS AWARDED	DOLLARS PAID
<i>CONSTRUCTION</i>			
2004	137	1,164,445,900	1,139,628,788
2005	145	1,491,348,068	1,398,078,269
2006	198	1,153,820,438	1,121,172,638
2007	231	1,917,111,172	1,828,277,653
2008	318	2,159,183,974	2,079,345,470
TOTAL	1,029	7,885,909,552	7,566,502,818
<i>CRS</i>			
2004	95	301,230,019	254,373,654
2005	88	193,680,856	129,066,912
2006	108	155,552,976	153,665,907
2007	98	153,829,290	116,667,820
2008	76	255,719,750	239,068,694
TOTAL	465	1,060,012,891	892,842,987
<i>SERVICES</i>			
2004	148	6,824,424,784	6,591,946,644
2005	122	1,030,281,936	867,826,802
2006	151	4,858,976,364	4,923,845,533
2007	165	476,583,665	409,274,659
2008	182	1,342,912,988	1,376,550,908
TOTAL	768	14,533,179,737	14,169,444,546

Table 3.2. Summary of Master Contract/Subcontract Database: Prime Contracts by Year of Award, Cont'd

PROCUREMENT CATEGORY & YEAR OF AWARD	NUMBER OF PRIME CONTRACTS	DOLLARS AWARDED	DOLLARS PAID
<i>COMMODITIES</i>			
2004	470	1,897,545,272	1,001,510,513
2005	444	1,827,223,224	1,329,577,520
2006	465	2,234,977,395	1,368,291,123
2007	447	1,740,648,585	1,521,122,413
2008	529	1,919,972,957	1,752,292,210
TOTAL	2,355	9,620,367,432	6,972,793,780
<i>ALL</i>			
2004	850	10,187,645,975	8,987,459,600
2005	799	4,542,534,084	3,724,549,503
2006	922	8,403,327,173	7,566,975,201
2007	941	4,288,172,712	3,875,342,545
2008	1,105	5,677,789,668	5,447,257,282
TOTAL	4,618	33,104,429,851	29,606,539,270

Source: See Table 3.1.

Defining the Relevant Markets

Table 3.3. Summary of Master Contract/Subcontract Database: Prime Contracts by State Agency

DEPARTMENT	NUMBER OF PRIME CONTRACTS	DOLLARS AWARDED	DOLLARS PAID
<i>CONSTRUCTION</i>	1,029	7,901,356,795	7,579,828,524
DEPARTMENT OF ENVIRONMENTAL CONSERVATION	61	174,400,364	161,542,172
DEPARTMENT OF TRANSPORTATION	209	2,756,005,099	2,697,659,595
METROPOLITAN TRANSPORTATION AUTHORITY	114	2,710,655,616	2,540,753,318
NEW YORK STATE THRUWAY AUTHORITY	67	683,927,168	657,058,624
NYS POWER AUTHORITY	69	78,118,487	75,609,183
OFFICE FOR TECHNOLOGY	1	32,400	32,400
OFFICE OF GENERAL SERVICES	193	639,488,030	613,005,906
STATE UNIVERSITY CONSTRUCTION FUND	74	595,845,206	577,181,922
THE STATE UNIVERSITY OF NEW YORK	241	262,884,425	256,985,403
<i>CRS</i>	465	1,067,335,628	897,855,068
DEPARTMENT OF ENVIRONMENTAL CONSERVATION	4	787,584	758,243
DEPARTMENT OF TRANSPORTATION	39	347,652,801	316,695,077
METROPOLITAN TRANSPORTATION AUTHORITY	76	433,671,896	306,197,832
NEW YORK STATE THRUWAY AUTHORITY	59	73,460,440	83,834,100
OFFICE FOR TECHNOLOGY	1	30,000	12,375
OFFICE OF GENERAL SERVICES	67	100,199,939	84,544,394
STATE UNIVERSITY CONSTRUCTION FUND	65	52,297,319	47,843,589
THE STATE UNIVERSITY OF NEW YORK	154	59,235,648	57,969,458
<i>SERVICES</i>	768	14,703,277,248	14,313,283,964
DEPARTMENT OF CIVIL SERVICE	19	9,793,852,539	9,566,859,122
DEPARTMENT OF CORRECTIONAL SERVICES	28	131,263,932	249,837,623
DEPARTMENT OF ENVIRONMENTAL CONSERVATION	34	46,904,170	43,222,224
DEPARTMENT OF HEALTH	106	1,854,746,829	1,678,539,737
DEPARTMENT OF TAXATION & FINANCE	38	287,347,888	256,511,063
DEPARTMENT OF TRANSPORTATION	30	81,425,346	65,522,985
DEPT OF TEMPORARY & DISABILITY ASSISTANCE	29	408,626,926	379,326,844
DIVISION OF THE LOTTERY	9	544,872,412	545,653,744

DEPARTMENT	NUMBER OF PRIME CONTRACTS	DOLLARS AWARDED	DOLLARS PAID
METROPOLITAN TRANSPORTATION AUTHORITY	31	507,075,266	375,168,709
NEW YORK STATE THRUWAY AUTHORITY	22	14,366,061	12,024,907
NYS POWER AUTHORITY	55	73,152,357	61,911,665
OFFICE FOR TECHNOLOGY	66	31,561,710	26,548,418
OFFICE OF GENERAL SERVICES	39	472,649,124	630,934,669
STATE UNIVERSITY CONSTRUCTION FUND	1	128,368	125,322
THE STATE UNIVERSITY OF NEW YORK	261	455,304,320	421,096,933
<i>COMMODITIES</i>	2,355	9,620,367,432	6,972,793,780
DEPARTMENT OF CIVIL SERVICE	2	7,857,284	6,092,325
DEPARTMENT OF CORRECTIONAL SERVICES	27	28,040,378	20,815,070
DEPARTMENT OF ENVIRONMENTAL CONSERVATION	5	10,806,475	5,236,112
DEPARTMENT OF HEALTH	15	45,490,098	29,215,291
DEPARTMENT OF TAXATION & FINANCE	6	22,633,812	20,655,441
DEPARTMENT OF TRANSPORTATION	10	162,199,102	92,892,728
DEPT OF TEMPORARY & DISABILITY ASSISTANCE	2	46,431,499	44,603,861
DIVISION OF THE LOTTERY	2	48,967,940	40,443,321
METROPOLITAN TRANSPORTATION AUTHORITY	1,444	3,642,762,030	2,528,380,075
NYS POWER AUTHORITY	119	80,597,552	73,907,979
OFFICE FOR TECHNOLOGY	16	177,795,494	41,298,038
OFFICE OF GENERAL SERVICES	629	5,064,450,435	3,854,858,296
THE STATE UNIVERSITY OF NEW YORK	78	282,335,335	214,395,242
<i>OVERALL</i>	4,617	33,292,337,103	29,763,761,336
DEPARTMENT OF CIVIL SERVICE	21	9,801,709,822	9,572,951,447
DEPARTMENT OF CORRECTIONAL SERVICES	55	159,304,310	270,652,693
DEPARTMENT OF ENVIRONMENTAL CONSERVATION	104	232,898,593	210,758,751
DEPARTMENT OF HEALTH	121	1,900,236,927	1,707,755,028
DEPARTMENT OF TAXATION & FINANCE	44	309,981,700	277,166,504
DEPARTMENT OF TRANSPORTATION	288	3,347,282,348	3,172,770,385
DEPT OF TEMPORARY & DISABILITY ASSISTANCE	31	455,058,425	423,930,705

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DEPARTMENT	NUMBER OF PRIME CONTRACTS	DOLLARS AWARDED	DOLLARS PAID
DIVISION OF THE LOTTERY	11	593,840,352	586,097,065
METROPOLITAN TRANSPORTATION AUTHORITY	1,665	7,294,164,808	5,750,499,934
NEW YORK STATE THRUWAY AUTHORITY	148	771,753,669	752,917,631
NYS POWER AUTHORITY	243	231,868,396	211,428,827
OFFICE FOR TECHNOLOGY	84	209,419,604	67,891,231
OFFICE OF GENERAL SERVICES	928	6,276,787,528	5,183,343,266
STATE UNIVERSITY CONSTRUCTION FUND	140	648,270,893	625,150,833
THE STATE UNIVERSITY OF NEW YORK	734	1,059,759,728	950,447,036

Source: See Table 3.1.

Table 3.4. Distribution of State Contracting and Procurement Dollars by Geographic Location

Location	Construction (%)	CRS (%)	Services (%)	Commodities (%)	Overall (%)
Award Dollars					
Inside New York State plus New York CMSA	92.4	97.0	75.2	77.4	80.6
Outside New York State plus New York CMSA	7.6	3.0	24.8	22.6	19.4
Inside New York State	86.5	89.6	73.8	69.9	76.2
Outside New York State	13.5	10.4	26.2	30.1	23.8
Paid Dollars					
Inside New York State plus New York CMSA	92.3	96.9	74.7	80.8	81.3
Outside New York State plus New York CMSA	7.7	3.1	25.3	19.2	18.7
Inside New York State	86.2	90.6	73.2	73.9	77.2
Outside New York State	13.8	9.4	26.8	26.1	22.8

Source: See Table 3.1.

Defining the Relevant Markets

Table 3.5. Distribution of Contract and Subcontract Dollars Awarded by Industry Sub-sector: Construction

NAICS Sub-sector	NAICS Description	Percentage	Cumulative Percentage
238	Specialty Trade Contractors	40.04	40.04
237	Heavy and Civil Engineering Construction	25.33	65.37
236	Construction of Buildings	10.88	76.25
423	Merchant Wholesalers, Durable Goods	8.67	84.92
541	Professional, Scientific, and Technical Services	5.25	90.16
332	Fabricated Metal Product Manufacturing	2.77	92.93
562	Waste Management and Remediation Services	1.23	94.17
484	Truck Transportation	1.20	95.36
561	Administrative and Support Services	1.05	96.41
327	Nonmetallic Mineral Product Manufacturing	1.00	97.41
532	Rental and Leasing Services	0.59	98.00
336	Transportation Equipment Manufacturing	0.39	98.39
334	Computer and Electronic Product Manufacturing	0.28	98.67
424	Merchant Wholesalers, Nondurable Goods	0.24	98.91
811	Repair and Maintenance	0.18	99.09
333	Machinery Manufacturing	0.12	99.21
442	Furniture and Home Furnishings Stores	0.11	99.32
335	Electrical Eqpmt., Appliance, and Component Mfg.	0.11	99.43
339	Miscellaneous Manufacturing	0.09	99.52
517	Telecommunications	0.08	99.61
321	Wood Product Manufacturing	0.06	99.67
326	Plastics and Rubber Products Manufacturing	0.06	99.73
522	Credit Intermediation and Related Activities	0.05	99.78
444	Building Material & Garden Eqpmt. & Supplies Dealers	0.05	99.82
524	Insurance Carriers and Related Activities	0.04	99.87
331	Primary Metal Manufacturing	0.03	99.90
	Balance of industries (35 industries)	0.10	100.00
	<i>TOTAL - \$7,901,356,795</i>		

Source: See Table 3.1.

Table 3.6. Distribution of Contract and Subcontract Dollars Awarded by Industry Sub-sector: CRS

NAICS Sub- sector	NAICS Description	Percentage	Cumulative Percentage
541	Professional, Scientific, and Technical Services	69.17	69.17
236	Construction of Buildings	11.79	80.95
423	Merchant Wholesalers, Durable Goods	7.52	88.47
561	Administrative and Support Services	3.33	91.80
237	Heavy and Civil Engineering Construction	2.64	94.44
238	Specialty Trade Contractors	1.44	95.88
332	Fabricated Metal Product Manufacturing	0.92	96.80
532	Rental and Leasing Services	0.67	97.47
713	Amusement, Gambling, and Recreation Industries	0.65	98.12
327	Nonmetallic Mineral Product Manufacturing	0.55	98.67
562	Waste Management and Remediation Services	0.37	99.04
811	Repair and Maintenance	0.14	99.18
531	Real Estate	0.14	99.32
336	Transportation Equipment Manufacturing	0.10	99.43
339	Miscellaneous Manufacturing	0.09	99.52
323	Printing and Related Support Activities	0.09	99.61
488	Support Activities for Transportation	0.08	99.68
621	Ambulatory Health Care Services	0.07	99.75
524	Insurance Carriers and Related Activities	0.04	99.80
334	Computer and Electronic Product Manufacturing	0.04	99.84
333	Machinery Manufacturing	0.02	99.86
484	Truck Transportation	0.02	99.87
326	Plastics and Rubber Products Manufacturing	0.02	99.89
325	Chemical Manufacturing	0.02	99.90
	Balance of industries (14 industries)	0.10	100.00
	<i>TOTAL - \$1,067,335,628</i>		

Source: See Table 3.1.

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Table 3.7. Distribution of Contract and Subcontract Dollars Awarded by Industry Sub-sector: Services

NAICS Sub-sector	NAICS Description	Percentage	Cumulative Percentage
424	Merchant Wholesalers, Nondurable Goods	63.28	63.28
541	Professional, Scientific, and Technical Services	10.60	73.87
524	Insurance Carriers and Related Activities	6.54	80.41
623	Nursing and Residential Care Facilities	4.71	85.12
423	Merchant Wholesalers, Durable Goods	3.38	88.50
561	Administrative and Support Services	2.51	91.01
518	Data Processing, Hosting and Related Services	2.30	93.31
485	Transit and Ground Passenger Transportation	1.02	94.34
713	Amusement, Gambling, and Recreation Industries	0.78	95.12
522	Credit Intermediation and Related Activities	0.74	95.86
236	Construction of Buildings	0.56	96.42
238	Specialty Trade Contractors	0.53	96.95
446	Health and Personal Care Stores	0.45	97.40
722	Food Services and Drinking Places	0.33	97.73
624	Social Assistance	0.32	98.05
621	Ambulatory Health Care Services	0.30	98.35
484	Truck Transportation	0.27	98.63
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	0.26	98.89
237	Heavy and Civil Engineering Construction	0.13	99.01
562	Waste Management and Remediation Services	0.10	99.12
336	Transportation Equipment Manufacturing	0.10	99.22
812	Personal and Laundry Services	0.10	99.31
511	Publishing Industries (except Internet)	0.09	99.41
333	Machinery Manufacturing	0.07	99.48
334	Computer and Electronic Product Manufacturing	0.07	99.55
517	Telecommunications	0.06	99.60
332	Fabricated Metal Product Manufacturing	0.05	99.65
327	Nonmetallic Mineral Product Manufacturing	0.05	99.70
532	Rental and Leasing Services	0.04	99.74
488	Support Activities for Transportation	0.03	99.77

NAICS Sub- sector	NAICS Description	Percentage	Cumulative Percentage
321	Wood Product Manufacturing	0.03	99.80
492	Couriers and Messengers	0.03	99.83
323	Printing and Related Support Activities	0.02	99.85
622	Hospitals	0.02	99.87
531	Real Estate	0.02	99.89
493	Warehousing and Storage	0.02	99.90
	Balance of industries (32 industries)	0.10	100.00
	<i>TOTAL - \$14,703,277,248</i>		

Source: See Table 3.1.

Defining the Relevant Markets

Table 3.8. Distribution of Contract and Subcontract Dollars Awarded by Industry Sub-sector: Commodities

NAICS Sub-sector	NAICS Description	Percentage	Cumulative Percentage
423	Merchant Wholesalers, Durable Goods	23.61	23.61
424	Merchant Wholesalers, Nondurable Goods	18.54	42.15
336	Transportation Equipment Manufacturing	18.30	60.45
517	Telecommunications	8.50	68.95
541	Professional, Scientific, and Technical Services	3.19	72.15
312	Beverage and Tobacco Product Manufacturing	2.67	74.82
441	Motor Vehicle and Parts Dealers	2.40	77.21
238	Specialty Trade Contractors	2.19	79.41
221	Utilities	2.19	81.60
325	Chemical Manufacturing	2.10	83.70
334	Computer and Electronic Product Manufacturing	1.98	85.68
532	Rental and Leasing Services	1.69	87.37
511	Publishing Industries (except Internet)	1.64	89.01
332	Fabricated Metal Product Manufacturing	1.11	90.13
237	Heavy and Civil Engineering Construction	0.92	91.05
323	Printing and Related Support Activities	0.92	91.97
236	Construction of Buildings	0.86	92.83
333	Machinery Manufacturing	0.72	93.54
339	Miscellaneous Manufacturing	0.49	94.03
561	Administrative and Support Services	0.48	94.51
331	Primary Metal Manufacturing	0.37	94.88
621	Ambulatory Health Care Services	0.37	95.25
322	Paper Manufacturing	0.36	95.61
335	Electrical Equipment, Appliance, and Component Manufacturing	0.36	95.97
311	Food Manufacturing	0.35	96.32
324	Petroleum and Coal Products Manufacturing	0.34	96.66
522	Credit Intermediation and Related Activities	0.32	96.99
442	Furniture and Home Furnishings Stores	0.28	97.27
443	Electronics and Appliance Stores	0.26	97.53
811	Repair and Maintenance	0.24	97.77

NAICS Sub-sector	NAICS Description	Percentage	Cumulative Percentage
562	Waste Management and Remediation Services	0.20	97.98
488	Support Activities for Transportation	0.19	98.17
321	Wood Product Manufacturing	0.18	98.35
524	Insurance Carriers and Related Activities	0.18	98.53
713	Amusement, Gambling, and Recreation Industries	0.18	98.70
327	Nonmetallic Mineral Product Manufacturing	0.17	98.87
453	Miscellaneous Store Retailers	0.16	99.03
337	Furniture and Related Product Manufacturing	0.16	99.18
518	Data Processing, Hosting and Related Services	0.11	99.29
446	Health and Personal Care Stores	0.10	99.40
624	Social Assistance	0.10	99.50
485	Transit and Ground Passenger Transportation	0.07	99.57
315	Apparel Manufacturing	0.06	99.63
484	Truck Transportation	0.06	99.68
519	Other Information Services	0.05	99.73
313	Textile Mills	0.05	99.78
512	Motion Picture and Sound Recording Industries	0.04	99.82
326	Plastics and Rubber Products Manufacturing	0.04	99.86
525	Funds, Trusts, and Other Financial Vehicles	0.03	99.89
451	Sporting Goods, Hobby, Book, and Music Stores	0.03	99.92
	Balance of industries (10 industries)	0.08	100.00
	<i>TOTAL - \$9,620,367,432</i>		

Source: See Table 3.1.

IV. M/WBE Availability in New York's Marketplace

A. Identifying Businesses in the Relevant Markets

M/WBE availability (unweighted) is defined as the number of M/WBEs divided by the total number of businesses in the State's contracting market area—what we will refer to as the Baseline Business Universe.¹⁶³ Determining the total number of businesses in the relevant markets, however, is more straightforward than determining the number of minority- or women-owned businesses in those markets. The latter task has three main parts: (1) identify all listed M/WBEs in the relevant market; (2) verify the ownership status of listed M/WBEs; and (3) estimate the number of unlisted M/WBEs in the relevant market. This section describes how these tasks were accomplished for NYS.

It is important to note that NERA's availability analysis is free from variables tainted by discrimination. Our approach recognizes that discrimination may impact many of the variables that contribute to a firm's success in obtaining work as a prime or a subcontractor. Factors such as firm size, time in business, qualifications, and experience are all adversely affected by discrimination if it is present in the marketplace. Despite the obvious relationship, some commentators argue that disparities should only be assessed between firms with similar "capacities."¹⁶⁴ However, the courts in our view have properly refused to make the results of discrimination the benchmarks for non-discrimination.¹⁶⁵ They have acknowledged that M/WBEs may be smaller, newer, and otherwise less competitive than non-M/WBEs because of the very discrimination sought to be remedied by race-conscious contracting programs. Racial and gender differences in these "capacity" factors are the *outcomes* of discrimination and it is therefore inappropriate as a matter of economics and statistics to use them as "control" variables in a disparity study.¹⁶⁶

1. Estimate the Total Number of Businesses in the Market

We used data supplied by Dun & Bradstreet's Hoovers subsidiary to determine the total number of businesses operating in the relevant geographic and product markets (these markets were discussed in the previous section). Dun & Bradstreet produces the most comprehensive publicly available database of businesses in the U.S. This database contains over 15 million records and is updated continuously. Each record in Dun & Bradstreet represents a business or business

¹⁶³ To yield a percentage, the resulting figure is multiplied by 100.

¹⁶⁴ See Remarks of George LaNoue, U.S. Commission on Civil Rights, "Disparity Studies as Evidence of Discrimination in Federal Contracting," May 2006 (LaNoue was rejected as an expert witness by the court in *Gross Seed Company v. Nebraska Department of Roads*, No. 02-3016 (D. Neb. 2002)).

¹⁶⁵ *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950, 981, 983 (10th Cir. 2003), *cert. denied*, 124 S.Ct. 556 (2003) (emphasis in the originals) ("MWBE construction firms are generally smaller and less experienced *because* of discrimination.... Additionally, we do not read *Croson* to require disparity studies that measure whether construction firms are able to perform a *particular contract*.")

¹⁶⁶ *Concrete Works*, 321 F.3d at 981 (emphasis in the original). See also, Wainwright and Holt (2010), Appendix B "Understanding Capacity."

establishment and includes the business name, address, telephone number, NAICS code, SIC code, business type, DUNS Number (a unique number assigned to each establishment by Dun & Bradstreet) and other descriptive information. Dun & Bradstreet gathers and verifies information from many different sources. These sources include among others annual management interviews, payment experiences, bank account information, filings for suits, liens, judgments and bankruptcies, news items, the U. S. Postal Service, utility and telephone service, business registrations, corporate charters, Uniform Commercial Code filings, and records of the Small Business Administration and other governmental agencies.

We used the Dun & Bradstreet database to identify the total number of businesses in each six-digit NAICS code to which we had anticipated assigning a product market weight. Table 4.1 shows the number of businesses identified in each NAICS sub-sector within the Construction category, along with the associated industry weight according to dollars expended. Comparable data for CRS, Services, and Commodities appears in Tables 4.2-4.4, respectively. These four main procurement categories (Construction, CRS, Services, and Commodities) were assigned based on the State's own prime contract data for the study period.

Although numerous industries play a role in the State's Baseline Business Universe, contracting and subcontracting opportunities are not distributed evenly among them. The distribution of contract expenditures is, in fact, highly skewed, as documented above in Chapter III.

2. Identify Listed M/WBEs

While extensive, Dun & Bradstreet does not sufficiently identify all businesses owned by minorities or women. Although many such businesses *are* correctly identified in Dun & Bradstreet, experience has demonstrated that many are also missed. For this reason, several additional steps were required to identify the appropriate percentage of M/WBEs in the relevant market.

First, NERA completed an intensive regional search for information on minority-owned and woman-owned businesses in the New York area. Beyond the information already in Dun & Bradstreet, NERA collected lists of M/WBEs from the Empire State Development Corporation as well as other public and private entities. These additional directories included: New York State Unified Certification Program; the City of New York; New York City Small Business Services; Buffalo Niagara International Airport; New York State Department of Transportation; Rochester Black Business Association; Rochester School District; Rochester Boule; Women: Together Inspiring Entrepreneurial Success; Women's Business Owners' Connection; National Association of Women Business Owners (New York, Rochester, Pittsburgh, Central Jersey & South Jersey Chapters); Cities of Bridgeport and New Haven, Connecticut; Connecticut Department of Administration Services Supplier Diversity Program; Connecticut Department of Transportation; The Entrepreneurial Women's Network; Black Pages of New England; Cambridge Community Development; City of Boston; New England Black Chamber of Commerce Business Center; State of Massachusetts; Women Business Owners Alliance of the Pioneer Valley; Chinatown Main Street; The Burroughs Group; Asian Indian Chamber of Commerce-New Jersey; Hudson County; New Jersey Department of Transportation; New Jersey Transit; City of Newark; State of New Jersey Department of Treasury; State of New Jersey

Department of Commerce; the Port Authority of New York and New Jersey; African American Chamber of Commerce – Philadelphia; City of Philadelphia; Brotha Ash Productions; Pennsylvania Unified Certification Program; State of Pennsylvania Department of General Services; African American Chamber of Commerce of Central Pennsylvania; Rhode Island Department of Transportation; State of Vermont Agency of Transportation; Vermont Women's Business Center; Women Business Owners Network; Asian Women in Business; Business Research Services, Inc. National File of Minority- and Women-Owned Businesses; Diversity Information Resources National Minority and Women-Owned Business Database; DiversityBusiness.com; National Association of Women in Construction; Native American Business Alliance; Small Business Administration/Central Contractor Registry; the National Center for American Indian Enterprise Development; U.S. Department of Commerce; U.S. Women's Chamber of Commerce; Women Business Enterprise National Council; African American Business Directory; American Indian Search; Minority Professional Network, and the United Indian Development Association.¹⁶⁷

The M/WBEs identified in this manner are referred to as “listed” M/WBEs. Table 4.5 shows the number of listed M/WBEs identified in each NAICS sub-sector within the Construction category, along with the associated industry weight according to dollars expended—the same industry weight as used in corresponding Table 4.1. Comparable data for CRS, Services, and Commodities appears in Tables 4.6-4.8, respectively.

If the listed M/WBEs identified in the Tables 4.5-4.8 are in fact *all* M/WBEs and are the *only* M/WBEs among all the businesses identified in Tables 4.1-4.4, then an estimate of “listed” M/WBE availability is simply the number of listed M/WBEs (taken from Tables 4.5–4.8, respectively) divided by the total number of businesses in the relevant market (taken from Tables 4.1-4.4, respectively). However, as we shall see below, neither of these two conditions holds true in practice and this is therefore *not* an appropriate method for measuring M/WBE availability.

There are two reasons for this. First, it is likely that some of the M/WBEs listed in the tables 4.5-4.8 are not actually minority-owned or woman-owned. Second, it is likely that there are additional “unlisted” M/WBEs among all the businesses included in Tables 4.1-4.4. Such businesses may not appear in any of the directories we gathered and are therefore not included as M/WBEs in Tables 4.5-4.8. Additional steps are required to test these two conditions and to arrive at a more accurate representation of M/WBE availability within the Baseline Business Universe. We discuss these steps in Sections 3.A and 3.B below.

3. Verify Listed M/WBEs and Estimate Unlisted M/WBEs

It is likely that information on M/WBEs from Dun & Bradstreet and other M/WBE directories is not correct in all instances. Phenomena such as ownership changes, associate or mentor status,

¹⁶⁷ We also obtained information from certain entities that was duplicative of either Dun & Bradstreet or one or more of the other sources listed above. These entities are listed below in Appendix A. We were unable to obtain relevant lists or directories from a number of entities. The reasons for this include: (1) the entity did not have a list or the entity's list did not include race and sex information; (2) the entity was unresponsive to repeated attempts at contacts; or, (3) the entity simply declined to provide us the list. These entities, as well, are listed in Appendix A.

recording errors, or even outright misrepresentation will lead to businesses being listed as M/WBEs in a particular directory even though they may actually be owned by non-minority males. Other things equal, this type of error would cause our availability estimate to be biased upward from the actual availability number.

The second likelihood that must be addressed is that not all M/WBE businesses are necessarily listed—either in Dun & Bradstreet or in any of the other directories we collected. Such phenomena as geographic relocation, ownership changes, directory compilation errors, and limitations in M/WBE outreach could all lead to M/WBEs being unlisted. Other things equal, this type of error would cause our availability estimate to be biased downward from the actual availability number.

In our experience, we have found that both types of bias are not uncommon. For this Study, we corrected for the effect of these biases using statistical sampling procedures. We surveyed a large, stratified random sample of more than 9,000 establishments drawn from the Baseline Business Universe and measured how often they were misclassified (or unclassified) by race and/or sex.¹⁶⁸

Strata were defined according to NAICS sub-sectors code and listed M/WBE status.¹⁶⁹ In the phone survey, up to 10 attempts were made to reach each business and speak with an appropriate respondent. Attempts were scheduled for a mix of day and evening, weekdays and weekends, and appointments were scheduled for callbacks when necessary. Of the 9,250 firms in our sample, 3,846 (41.6%) were listed M/WBEs and 5,404 (58.4%) were unclassified by race or sex. However, 771 establishments were excluded as “unable to contact.” Exclusions resulted primarily from establishments that were no longer in business.¹⁷⁰ Of the remaining 8,479 firms, 3,595 (42.4%) were listed M/WBEs and the remaining 4,884 establishments (57.6%) were unclassified.

The first part of the survey tested whether our sample of listed M/WBEs was correctly classified by race and/or sex. The second part of the survey tested whether the unclassified firms could all be properly classified as non-M/WBEs. Both elements of the survey are described in more detail below.

¹⁶⁸ A similar methodology has also been employed by the Federal Reserve Board to deal with similar problems in designing and implementing the National Surveys of Small Business Finances for 1993 and 1998. See Catherine Haggerty, Karen Grigorian, Rachel Harter and John D. Wolken, “The 1998 Survey of Small Business Finances: Sampling and Level of Effort Associated with Gaining Cooperation from Minority-Owned Business,” *Proceedings of the Second International Conference on Establishment Surveys*, Buffalo, NY, June 17-21, 2000.

¹⁶⁹ Nineteen separate industry strata were created based on NAICS code and on whether a particular NAICS code was among those NAICS codes accounting for the top 90 percent of state contract and subcontract spending or not. All 19 strata were then split according to listed M/WBE status to create a total of 38 strata. Generally, listed M/WBEs were sampled at a higher rate than unclassified establishments.

¹⁷⁰ A Fisher’s Exact Test to check if putative M/WBEs were more likely to be affected by this than non-M/WBEs was not statistically significant.

a. Survey of Listed M/WBEs

We selected a stratified random sample of 3,846 listed M/WBEs to verify the race and gender status of their owner(s). Of these, 251 (6.5%) were excluded as “unable to contact.” Of the 3,595 remaining establishments, we obtained complete interviews from 1,728, for a response rate of 48.0 percent.¹⁷¹

Of the 1,728 establishments interviewed, 377 (21.8 percent) were owned by non-minority males. The amount of misclassification was substantial in every NAICS stratum. It was highest in NAICS 441 and 447 (Motor Vehicle and Parts Dealers, Gasoline Stations) and lowest in NAICS 48 and 49 (Transportation and Warehousing) as shown in Table 4.9. Misclassification varied by putative race and sex, as shown in Table 4.10, and was highest among putative Native American firms, followed by Hispanics, Non-minority females, MBEs of unknown putative race, Asians, and finally African-Americans.¹⁷²

The race and gender status of the listed M/WBEs responding to the survey was changed, if necessary, according to the survey results. For example, if a business originally listed as a non-minority female-owned was actually non-minority male-owned, then that business was counted as non-minority male-owned for purposes of calculating M/WBE availability. But what about the remaining putatively non-minority female-owned establishments that we did not interview? For these businesses, we estimate the race and sex of their ownership based on the amount of misclassification we observed among the non-minority female-owned firms that we did interview. In this example, our interviews show that 61.0 percent of these firms are indeed actually non-minority female-owned, 23.8 percent are actually non-minority male-owned, and 15.2 percent are actually minority-owned (see Table 4.10). Therefore, we assign each of the remaining putative non-minority female firms a 61.0 percent probability of actually being non-minority female-owned, a 23.8 percent probability of actually being non-minority male-owned, and a 15.2 percent probability of being minority-owned. We repeated this procedure within each sample stratum and for all putative race and sex categories.

b. Survey of Unclassified Businesses

In a manner exactly analogous to our survey of listed M/WBEs, in the second part of our survey we examined unclassified businesses, *i.e.* any business that was not originally identified as a M/WBE, either in *MarketPlace* or in one or more of the other directories.

¹⁷¹ For this study, “Black” or “African American” refers to a person having origins in any of the Black African racial groups; “Hispanic” refers to a person of Mexican, Puerto Rican, Dominican, Cuban, Central or South American, of either Indian or Hispanic origin, regardless of race; “Asian and Pacific Islander” or “Asian” refers to a person having origins in any of the Far East countries, South East Asia, the Indian Subcontinent, or the Pacific Islands; “Native American” refers to a person having origins in any of the original peoples of North America; and “White” or “non-minority” means a non-Hispanic person having origins in Europe, North Africa, or the Middle East.

¹⁷² By “putative,” we mean the race and gender that we initially assigned to each firm based on the information provided by the State, by Dun & Bradstreet by our master M/WBE directory, or identified from other sources.

We selected a stratified random sample of 5,404 unclassified businesses from the Baseline Business Universe to verify the race and gender status of their owner(s). Of these, 520 (9.6%) were excluded as “unable to contact.” Of the 4,884 remaining establishments, we obtained 1,824 complete interviews, for a response rate of 37.3 percent.

Of the 1,824 establishments interviewed, 1,459 (80.0%) were owned by non-minority males, 163 (8.9%) by non-minority females, and 201 (11.1%) by minorities, as shown in Table 4.12. A similar phenomenon was observed within each industry stratum, as shown in Table 4.11.

As with the survey of listed M/WBEs, the race and gender status of unclassified businesses was changed, if necessary, according to the survey results. For example, if an interviewed business that was originally unclassified indicated that it was actually non-minority male-owned, then that business was counted as non-minority male-owned for purposes of the M/WBE availability calculation. If it indicated it was non-minority female-owned, it was counted as non-minority female, and so on. For unclassified businesses that were not interviewed, we assigned probability values (probability actually non-minority male-owned, probability actually non-minority female-owned, probability actually African-American-owned, etc.) based on the interview responses. We again carried out the probability assignment procedure within each stratum.

Clearly, a large majority of unclassified businesses in the Baseline Business Universe (80.0 percent overall) are non-minority male-owned. Nevertheless, this means that 20.0 percent were *not* non-minority male-owned. Among the latter, the largest group was non-minority female-owned, with descending size shares accounted for by Asian-owned, Hispanic-owned, African-American-owned, and finally Native American-owned. Table 4.12 shows the actual survey results by race and sex.

B. Estimates of M/WBE Availability by Detailed Race, Sex, and Industry

Tables 4.13-4.16 present detailed estimates of M/WBE availability by race, sex, M/WBE status, and detailed NAICS industry. These estimates have been statistically corrected to adjust for misclassification and non-classification bias in the Baseline Business Universe as described in the previous section. Summary level estimates are weighted averages with weights based on industry-level contracting and procurement award dollars, as described in Chapter III, Section C.

Table 4.13 provides estimated M/WBE availability for all industries in the Construction procurement category during the study period. Overall, M/WBE availability in Construction is estimated at 22.74 percent.

Table 4.14 provides estimated M/WBE availability for all industries in the CRS procurement category during the study period. Overall, M/WBE availability in CRS is estimated at 24.53 percent.

Table 4.15 provides estimated M/WBE availability for all industries in the Services procurement category during the study period. Overall, M/WBE availability in Services is estimated at 37.04 percent.

Table 4.16 provides estimated M/WBE availability for all industries in the Commodities procurement category during the study period. Overall, M/WBE availability in Commodities is estimated at 27.05 percent.

Next, Table 4.17 shows that overall M/WBE availability in the State's relevant marketplace is 28.92 percent. Non-M/WBE availability is 71.08 percent. Overall, among M/WBEs, availability of African-American-owned businesses is 3.71 percent, availability of Hispanic-owned businesses is 5.41 percent, availability of Asian-owned businesses is 7.08 percent, availability of Native American-owned businesses is 0.33 percent, and availability of non-minority female-owned businesses is 12.39 percent.

C. Tables

Table 4.1. Construction—Number of Businesses and Industry Weight, by NAICS Code, 2010

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
2373	Highway, Street, and Bridge Construction	1,639	23.36	23.36
2382	Building Equipment Contractors	25,023	20.74	44.10
2362	Nonresidential Building Construction	4,208	10.88	54.98
2381	Foundation, Structure, and Building Exterior Contractors	7,367	8.73	63.72
2383	Building Finishing Contractors	11,640	5.45	69.17
2389	Other Specialty Trade Contractors	11,796	5.11	74.28
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	1,188	4.20	78.47
5413	Architectural, Engineering, and Related Services	18,139	3.83	82.31
3323	Architectural and Structural Metals Manufacturing	1,306	2.58	84.89
4233	Lumber and Other Construction Materials Merchant Wholesalers	2,499	1.37	86.25
2379	Other Heavy and Civil Engineering Construction	156	1.23	87.49
5416	Management, Scientific, and Technical Consulting Services	11,000	1.20	88.68
4841	General Freight Trucking	7,024	1.20	89.88
3273	Cement and Concrete Product Manufacturing	239	0.96	90.84
4236	Electrical and Electronic Goods Merchant Wholesalers	4,885	0.95	91.78
5617	Services to Buildings and Dwellings	17,116	0.81	92.59
2371	Utility System Construction	719	0.73	93.32
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	2,227	0.72	94.03
5629	Remediation and Other Waste Management Services	326	0.65	94.69
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	6,641	0.64	95.33
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	1,495	0.58	95.91
5622	Waste Treatment and Disposal	1,049	0.55	96.46
4232	Furniture and Home Furnishing Merchant Wholesalers	3,321	0.42	96.88
3365	Railroad Rolling Stock Manufacturing	30	0.38	97.26
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	5,910	0.34	97.60
4247	Petroleum and Petroleum Products Merchant Wholesalers	931	0.19	97.78
3341	Computer and Peripheral Equipment Manufacturing	233	0.15	97.94
5614	Business Support Services	536	0.14	98.08
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	1,431	0.13	98.21
5415	Computer Systems Design and Related Services	13,868	0.12	98.33
4422	Home Furnishings Stores	4,666	0.11	98.44
3399	Other Miscellaneous Manufacturing	3,368	0.09	98.53

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
3324	Boiler, Tank, and Shipping Container Manufacturing	30	0.09	98.62
3329	Other Fabricated Metal Product Manufacturing	482	0.09	98.71
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	1,182	0.07	98.78
5172	Wireless Telecommunications Carriers (except Satellite)	2,186	0.07	98.86
5616	Investigation and Security Services	3,618	0.06	98.92
3339	Other General Purpose Machinery Manufacturing	462	0.06	98.98
3219	Other Wood Product Manufacturing	530	0.06	99.04
3353	Electrical Equipment Manufacturing	284	0.06	99.10
3342	Communications Equipment Manufacturing	610	0.05	99.16
5221	Depository Credit Intermediation	5,711	0.05	99.21
8112	Electronic and Precision Equipment Repair and Maintenance	1,735	0.05	99.26
5418	Advertising, Public Relations, and Related Services	4,794	0.04	99.30
5241	Insurance Carriers	1,200	0.04	99.34
4239	Miscellaneous Durable Goods Merchant Wholesalers	7,300	0.04	99.39
4441	Building Material and Supplies Dealers	4,683	0.04	99.43
3261	Plastics Product Manufacturing	841	0.04	99.47
5414	Specialized Design Services	5,039	0.04	99.50
5613	Employment Services	5,194	0.03	99.54
5621	Waste Collection	19	0.03	99.57
3351	Electric Lighting Equipment Manufacturing	95	0.03	99.59
4246	Chemical and Allied Products Merchant Wholesalers	1,383	0.02	99.62
3359	Other Electrical Equipment and Component Manufacturing	734	0.02	99.64
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	307	0.02	99.66
3312	Steel Product Manufacturing from Purchased Steel	81	0.02	99.69
3272	Glass and Glass Product Manufacturing	246	0.02	99.71
3262	Rubber Product Manufacturing	197	0.02	99.72
4241	Paper and Paper Product Merchant Wholesalers	1,901	0.01	99.74
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	1,080	0.01	99.75
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	1,477	0.01	99.76
2372	Land Subdivision	3,114	0.01	99.78
3331	Agriculture, Construction, and Mining Machinery Manufacturing	124	0.01	99.79
3271	Clay Product and Refractory Manufacturing	117	0.01	99.80
2123	Nonmetallic Mineral Mining and Quarrying	145	0.01	99.81
3279	Other Nonmetallic Mineral Product Manufacturing	210	0.01	99.82
3332	Industrial Machinery Manufacturing	345	0.01	99.83
3333	Commercial and Service Industry Machinery Manufacturing	439	0.01	99.84
3326	Spring and Wire Product Manufacturing	146	0.01	99.85
5171	Wired Telecommunications Carriers	1,795	0.01	99.86

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
3372	Office Furniture (including Fixtures) Manufacturing	285	0.01	99.87
5417	Scientific Research and Development Services	224	0.01	99.88
5312	Offices of Real Estate Agents and Brokers	33,170	0.01	99.89
5321	Automotive Equipment Rental and Leasing	861	0.01	99.90
1153	Support Activities for Forestry	60	0.01	99.90
5411	Legal Services	34,694	0.01	99.91
2211	Electric Power Generation, Transmission and Distribution	63	0.01	99.91
5311	Lessors of Real Estate	2,002	0.01	99.92
3315	Foundries	79	0.01	99.92
4442	Lawn and Garden Equipment and Supplies Stores	914	0.01	99.93
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	2,538	0.00	99.93
3311	Iron and Steel Mills and Ferroalloy Manufacturing	178	0.00	99.94
8111	Automotive Repair and Maintenance	14,692	0.00	99.94
3222	Converted Paper Product Manufacturing	204	0.00	99.94
3241	Petroleum and Coal Products Manufacturing	208	0.00	99.95
2131	Support Activities for Mining	90	0.00	99.95
2212	Natural Gas Distribution	168	0.00	99.95
3255	Paint, Coating, and Adhesive Manufacturing	261	0.00	99.96
1151	Support Activities for Crop Production	110	0.00	99.96
5231	Securities and Commodity Contracts Intermediation and Brokerage	810	0.00	99.96
5419	Other Professional, Scientific, and Technical Services	2,072	0.00	99.96
4884	Support Activities for Road Transportation	2,450	0.00	99.97
3321	Forging and Stamping	332	0.00	99.97
5111	Newspaper, Periodical, Book, and Directory Publishers	1,302	0.00	99.97
5612	Facilities Support Services	264	0.00	99.97
8129	Other Personal Services	1,174	0.00	99.97
3231	Printing and Related Support Activities	631	0.00	99.97
3362	Motor Vehicle Body and Trailer Manufacturing	80	0.00	99.98
5179	Other Telecommunications	3,308	0.00	99.98
4431	Electronics and Appliance Stores	5,995	0.00	99.98
3251	Basic Chemical Manufacturing	349	0.00	99.98
4421	Furniture Stores	3,845	0.00	99.98
3313	Alumina and Aluminum Production and Processing	16	0.00	99.98
3364	Aerospace Product and Parts Manufacturing	50	0.00	99.98
6114	Business Schools and Computer and Management Training	301	0.00	99.98
4859	Other Transit and Ground Passenger Transportation	942	0.00	99.99
4511	Sporting Goods, Hobby, and Musical Instrument Stores	2,886	0.00	99.99
3335	Metalworking Machinery Manufacturing	236	0.00	99.99
1119	Other Crop Farming	1,412	0.00	99.99
1114	Greenhouse, Nursery, and Floriculture Production	214	0.00	99.99
3259	Other Chemical Product and Preparation Manufacturing	302	0.00	99.99
4242	Drugs and Druggists' Sundries Merchant Wholesalers	1,852	0.00	99.99

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
3344	Semiconductor and Other Electronic Component Manufacturing	469	0.00	99.99
6215	Medical and Diagnostic Laboratories	1,469	0.00	99.99
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	178	0.00	99.99
3149	Other Textile Product Mills	304	0.00	99.99
3141	Textile Furnishings Mills	242	0.00	99.99
4821	Rail Transportation	112	0.00	99.99
5152	Cable and Other Subscription Programming	583	0.00	99.99
5615	Travel Arrangement and Reservation Services	5,277	0.00	99.99
3328	Coating, Engraving, Heat Treating, and Allied Activities	567	0.00	100.00
4411	Automobile Dealers	2,687	0.00	100.00
7211	Traveler Accommodation	3,091	0.00	100.00
4921	Couriers and Express Delivery Services	614	0.00	100.00
4885	Freight Transportation Arrangement	2,908	0.00	100.00
5112	Software Publishers	1,819	0.00	100.00
5222	Nondepository Credit Intermediation	1,722	0.00	100.00
4412	Other Motor Vehicle Dealers	442	0.00	100.00
3133	Textile and Fabric Finishing and Fabric Coating Mills	140	0.00	100.00
8114	Personal and Household Goods Repair and Maintenance	1,270	0.00	100.00
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers	1,395	0.00	100.00
3379	Other Furniture Related Product Manufacturing	120	0.00	100.00
4244	Grocery and Related Product Merchant Wholesalers	345	0.00	100.00
4543	Direct Selling Establishments	12	0.00	100.00
4452	Specialty Food Stores	1,137	0.00	100.00
6243	Vocational Rehabilitation Services	777	0.00	100.00
4883	Support Activities for Water Transportation	63	0.00	100.00
5174	Satellite Telecommunications	29	0.00	100.00
4541	Electronic Shopping and Mail-Order Houses	1,650	0.00	100.00
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	69	0.00	100.00
3361	Motor Vehicle Manufacturing	27	0.00	100.00
4881	Support Activities for Air Transportation	6	0.00	100.00
3121	Beverage Manufacturing	16	0.00	100.00
8123	Drycleaning and Laundry Services	4,665	0.00	100.00
4413	Automotive Parts, Accessories, and Tire Stores	2,070	0.00	100.00
7223	Special Food Services	178	0.00	100.00
5251	Insurance and Employee Benefit Funds	3	0.00	100.00
3343	Audio and Video Equipment Manufacturing	241	0.00	100.00
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	37	0.00	100.00
3118	Bakeries and Tortilla Manufacturing	2,348	0.00	100.00
2213	Water, Sewage and Other Systems	412	0.00	100.00
1124	Sheep and Goat Farming	58	0.00	100.00

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
8121	Personal Care Services	159	0.00	100.00
5223	Activities Related to Credit Intermediation	3,537	0.00	100.00
	<i>CONSTRUCTION</i>	<i>396,651</i>		

Source: Dun & Bradstreet's *MarketPlace*; M/WBE business directory information compiled by NERA; Master Contract/Subcontract Database.

Table 4.2. CRS—Number of Businesses and Industry Weight, by NAICS Code, 2010

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
5413	Architectural, Engineering, and Related Services	18,139	66.13	66.13
2362	Nonresidential Building Construction	4,208	11.79	77.91
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	3,533	7.17	85.08
5614	Business Support Services	536	3.03	88.11
2373	Highway, Street, and Bridge Construction	1,639	2.56	90.67
5415	Computer Systems Design and Related Services	13,868	2.08	92.75
3323	Architectural and Structural Metals Manufacturing	769	0.89	93.64
2382	Building Equipment Contractors	25,023	0.71	94.35
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	299	0.67	95.02
7139	Other Amusement and Recreation Industries	590	0.65	95.67
2389	Other Specialty Trade Contractors	11,796	0.65	96.32
3273	Cement and Concrete Product Manufacturing	4	0.55	96.87
5416	Management, Scientific, and Technical Consulting Services	12,489	0.53	97.40
5629	Remediation and Other Waste Management Services	326	0.37	97.77
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	5,870	0.28	98.05
5418	Advertising, Public Relations, and Related Services	6,352	0.25	98.30
5617	Services to Buildings and Dwellings	15,841	0.16	98.45
5616	Investigation and Security Services	2,435	0.13	98.59
5417	Scientific Research and Development Services	224	0.12	98.71
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	1,431	0.10	98.81
5312	Offices of Real Estate Agents and Brokers	33,170	0.10	98.91
3399	Other Miscellaneous Manufacturing	1,438	0.09	99.00
3365	Railroad Rolling Stock Manufacturing	30	0.09	99.09
3231	Printing and Related Support Activities	632	0.09	99.18
4882	Support Activities for Rail Transportation	291	0.08	99.26
2381	Foundation, Structure, and Building Exterior Contractors	6,723	0.07	99.33
5414	Specialized Design Services	10,199	0.05	99.39
6211	Offices of Physicians	38,802	0.05	99.43
2379	Other Heavy and Civil Engineering Construction	156	0.05	99.48
5313	Activities Related to Real Estate	342	0.04	99.53
5241	Insurance Carriers	1,200	0.04	99.57
2371	Utility System Construction	637	0.04	99.60
8111	Automotive Repair and Maintenance	765	0.04	99.64
4236	Electrical and Electronic Goods Merchant Wholesalers	4,360	0.03	99.67
3328	Coating, Engraving, Heat Treating, and Allied Activities	47	0.03	99.70
4233	Lumber and Other Construction Materials Merchant Wholesalers	2,304	0.03	99.73
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	350	0.02	99.75

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
6213	Offices of Other Health Practitioners	4,402	0.02	99.77
4841	General Freight Trucking	5,223	0.02	99.79
3342	Communications Equipment Manufacturing	452	0.02	99.81
3261	Plastics Product Manufacturing	723	0.02	99.82
3339	Other General Purpose Machinery Manufacturing	288	0.02	99.84
3256	Soap, Cleaning Compound, and Toilet Preparation Mfg.	175	0.01	99.85
5182	Data Processing, Hosting, and Related Services	2,137	0.01	99.87
2211	Electric Power Generation, Transmission and Distribution	5	0.01	99.88
4412	Other Motor Vehicle Dealers	542	0.01	99.89
5612	Facilities Support Services	264	0.01	99.90
5411	Legal Services	34,694	0.01	99.91
5122	Sound Recording Industries	75	0.01	99.92
7223	Special Food Services	152	0.01	99.93
8129	Other Personal Services	1,174	0.01	99.94
3364	Aerospace Product and Parts Manufacturing	147	0.01	99.95
4532	Office Supplies, Stationery, and Gift Stores	6,082	0.01	99.95
8112	Electronic and Precision Equipment Repair and Maintenance	1,166	0.01	99.96
4244	Grocery and Related Product Merchant Wholesalers	1,384	0.00	99.96
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	754	0.00	99.97
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	23	0.00	99.97
2383	Building Finishing Contractors	6,912	0.00	99.98
4246	Chemical and Allied Products Merchant Wholesalers	1,050	0.00	99.98
3152	Cut and Sew Apparel Manufacturing	92	0.00	99.99
3121	Beverage Manufacturing	195	0.00	99.99
1151	Support Activities for Crop Production	110	0.00	99.99
5179	Other Telecommunications	3,308	0.00	99.99
8123	Drycleaning and Laundry Services	165	0.00	99.99
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	1,188	0.00	100.00
3259	Other Chemical Product and Preparation Manufacturing	226	0.00	100.00
5321	Automotive Equipment Rental and Leasing	1,093	0.00	100.00
6215	Medical and Diagnostic Laboratories	1,469	0.00	100.00
5419	Other Professional, Scientific, and Technical Services	2,072	0.00	100.00
5622	Waste Treatment and Disposal	343	0.00	100.00
3369	Other Transportation Equipment Manufacturing	11	0.00	100.00
5613	Employment Services	1,994	0.00	100.00
1153	Support Activities for Forestry	60	0.00	100.00
4441	Building Material and Supplies Dealers	1,928	0.00	100.00
4239	Miscellaneous Durable Goods Merchant Wholesalers	3,101	0.00	100.00
5111	Newspaper, Periodical, Book, and Directory Publishers	1,148	0.00	100.00
	CRS	313,124		

Source: See Table 4.1.

Table 4.3. Services—Number of Businesses and Industry Weight, by NAICS Code, 2010

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
4242	Drugs and Druggists' Sundries Merchant Wholesalers	1,852	63.18	63.18
5241	Insurance Carriers	1,786	6.53	69.70
6231	Nursing Care Facilities	213	4.71	74.41
5418	Advertising, Public Relations, and Related Services	7,486	4.16	78.57
5415	Computer Systems Design and Related Services	13,961	3.10	81.66
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	6,139	2.87	84.53
5416	Management, Scientific, and Technical Consulting Services	11,073	2.41	86.95
5182	Data Processing, Hosting, and Related Services	2,137	2.30	89.25
5613	Employment Services	5,194	1.38	90.63
4859	Other Transit and Ground Passenger Transportation	942	0.89	91.52
7132	Gambling Industries	55	0.78	92.30
5221	Depository Credit Intermediation	5,711	0.71	93.02
5413	Architectural, Engineering, and Related Services	18,139	0.67	93.68
2362	Nonresidential Building Construction	4,208	0.56	94.25
5614	Business Support Services	1,785	0.53	94.78
2382	Building Equipment Contractors	25,023	0.47	95.25
4236	Electrical and Electronic Goods Merchant Wholesalers	4,885	0.46	95.71
4461	Health and Personal Care Stores	7,141	0.45	96.16
7223	Special Food Services	152	0.33	96.49
6243	Vocational Rehabilitation Services	777	0.32	96.81
4841	General Freight Trucking	5,223	0.27	97.09
5239	Other Financial Investment Activities	946	0.26	97.35
5617	Services to Buildings and Dwellings	15,841	0.23	97.58
5411	Legal Services	34,697	0.21	97.78
5615	Travel Arrangement and Reservation Services	6,158	0.21	97.99
5616	Investigation and Security Services	2,737	0.17	98.16
6219	Other Ambulatory Health Care Services	4,443	0.10	98.26
3365	Railroad Rolling Stock Manufacturing	30	0.10	98.36
6211	Offices of Physicians	40,430	0.09	98.45
5112	Software Publishers	1,819	0.09	98.55
2379	Other Heavy and Civil Engineering Construction	156	0.08	98.62
5622	Waste Treatment and Disposal	1,049	0.08	98.70
4244	Grocery and Related Product Merchant Wholesalers	3,592	0.08	98.78
4852	Interurban and Rural Bus Transportation	146	0.07	98.85
8123	Drycleaning and Laundry Services	4,767	0.07	98.92
4855	Charter Bus Industry	295	0.06	98.98
6215	Medical and Diagnostic Laboratories	1,469	0.05	99.04
3273	Cement and Concrete Product Manufacturing	180	0.05	99.08
3323	Architectural and Structural Metals Manufacturing	491	0.05	99.13
3339	Other General Purpose Machinery Manufacturing	490	0.04	99.17
3341	Computer and Peripheral Equipment Manufacturing	442	0.04	99.21
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	1,495	0.04	99.25

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
5179	Other Telecommunications	3,308	0.03	99.28
2371	Utility System Construction	637	0.03	99.32
3219	Other Wood Product Manufacturing	75	0.03	99.34
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	24	0.03	99.37
6214	Outpatient Care Centers	1,480	0.03	99.40
8129	Other Personal Services	1,174	0.03	99.43
2383	Building Finishing Contractors	11,640	0.03	99.45
4885	Freight Transportation Arrangement	2,908	0.02	99.48
4921	Couriers and Express Delivery Services	614	0.02	99.50
6213	Offices of Other Health Practitioners	11,877	0.02	99.53
2389	Other Specialty Trade Contractors	11,796	0.02	99.55
5419	Other Professional, Scientific, and Technical Services	3,703	0.02	99.57
5629	Remediation and Other Waste Management Services	393	0.02	99.60
5171	Wired Telecommunications Carriers	1,795	0.02	99.62
3231	Printing and Related Support Activities	5,293	0.02	99.64
5222	Nondepository Credit Intermediation	948	0.02	99.66
6222	Psychiatric and Substance Abuse Hospitals	379	0.02	99.68
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	621	0.02	99.70
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	1,188	0.02	99.72
5312	Offices of Real Estate Agents and Brokers	33,170	0.02	99.74
4931	Warehousing and Storage	1,422	0.02	99.75
5417	Scientific Research and Development Services	224	0.02	99.77
2373	Highway, Street, and Bridge Construction	1,639	0.02	99.79
5242	Agencies, Brokerages, and Other Insurance Related Activities	11,197	0.02	99.80
2381	Foundation, Structure, and Building Exterior Contractors	4,327	0.01	99.82
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers	1,395	0.01	99.83
5414	Specialized Design Services	10,199	0.01	99.84
4431	Electronics and Appliance Stores	4,259	0.01	99.85
3118	Bakeries and Tortilla Manufacturing	590	0.01	99.86
5191	Other Information Services	32	0.01	99.87
8112	Electronic and Precision Equipment Repair and Maintenance	1,166	0.01	99.88
4241	Paper and Paper Product Merchant Wholesalers	1,661	0.01	99.89
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	2,227	0.01	99.90
3133	Textile and Fabric Finishing and Fabric Coating Mills	140	0.01	99.90
4233	Lumber and Other Construction Materials Merchant Wholesalers	2,499	0.01	99.91
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	5,870	0.01	99.92
1133	Logging	393	0.01	99.93
4541	Electronic Shopping and Mail-Order Houses	1,650	0.01	99.93

M/WBE Availability in New York's Marketplace

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
4881	Support Activities for Air Transportation	6	0.01	99.94
3121	Beverage Manufacturing	211	0.01	99.94
4922	Local Messengers and Local Delivery	136	0.00	99.95
3343	Audio and Video Equipment Manufacturing	241	0.00	99.95
3342	Communications Equipment Manufacturing	452	0.00	99.96
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	1,431	0.00	99.96
7211	Traveler Accommodation	3,091	0.00	99.96
5152	Cable and Other Subscription Programming	583	0.00	99.96
3399	Other Miscellaneous Manufacturing	3,897	0.00	99.97
5122	Sound Recording Industries	75	0.00	99.97
5111	Newspaper, Periodical, Book, and Directory Publishers	4,409	0.00	99.97
5121	Motion Picture and Video Industries	5,268	0.00	99.97
8121	Personal Care Services	159	0.00	99.97
8114	Personal and Household Goods Repair and Maintenance	735	0.00	99.98
5621	Waste Collection	19	0.00	99.98
4532	Office Supplies, Stationery, and Gift Stores	7,321	0.00	99.98
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	81	0.00	99.98
4232	Furniture and Home Furnishing Merchant Wholesalers	3,321	0.00	99.98
4441	Building Material and Supplies Dealers	1,928	0.00	99.98
5511	Management of Companies and Enterprises	2,687	0.00	99.98
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	1,172	0.00	99.99
3115	Dairy Product Manufacturing	222	0.00	99.99
3222	Converted Paper Product Manufacturing	154	0.00	99.99
3111	Animal Food Manufacturing	8	0.00	99.99
4422	Home Furnishings Stores	2,277	0.00	99.99
6216	Home Health Care Services	1,712	0.00	99.99
3116	Animal Slaughtering and Processing	14	0.00	99.99
4239	Miscellaneous Durable Goods Merchant Wholesalers	7,300	0.00	99.99
6114	Business Schools and Computer and Management Training	301	0.00	99.99
4452	Specialty Food Stores	1,137	0.00	99.99
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	1,688	0.00	99.99
5223	Activities Related to Credit Intermediation	3,537	0.00	99.99
3353	Electrical Equipment Manufacturing	59	0.00	100.00
3149	Other Textile Product Mills	304	0.00	100.00
7115	Independent Artists, Writers, and Performers	1,797	0.00	100.00
3391	Medical Equipment and Supplies Manufacturing	614	0.00	100.00
5151	Radio and Television Broadcasting	295	0.00	100.00
5172	Wireless Telecommunications Carriers (except Satellite)	2,186	0.00	100.00
7114	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures	881	0.00	100.00
3324	Boiler, Tank, and Shipping Container Manufacturing	18	0.00	100.00

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	230	0.00	100.00
4821	Rail Transportation	112	0.00	100.00
1151	Support Activities for Crop Production	110	0.00	100.00
4442	Lawn and Garden Equipment and Supplies Stores	914	0.00	100.00
4413	Automotive Parts, Accessories, and Tire Stores	2,070	0.00	100.00
1129	Other Animal Production	389	0.00	100.00
3328	Coating, Engraving, Heat Treating, and Allied Activities	218	0.00	100.00
3254	Pharmaceutical and Medicine Manufacturing	865	0.00	100.00
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	175	0.00	100.00
1153	Support Activities for Forestry	60	0.00	100.00
4543	Direct Selling Establishments	178	0.00	100.00
2211	Electric Power Generation, Transmission and Distribution	58	0.00	100.00
6221	General Medical and Surgical Hospitals	922	0.00	100.00
3332	Industrial Machinery Manufacturing	85	0.00	100.00
3321	Forging and Stamping	329	0.00	100.00
3262	Rubber Product Manufacturing	139	0.00	100.00
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	219	0.00	100.00
3162	Footwear Manufacturing	22	0.00	100.00
7221	Full-Service Restaurants	103	0.00	100.00
4884	Support Activities for Road Transportation	2,268	0.00	100.00
4247	Petroleum and Petroleum Products Merchant Wholesalers	99	0.00	100.00
3261	Plastics Product Manufacturing	8	0.00	100.00
3113	Sugar and Confectionery Product Manufacturing	6	0.00	100.00
3152	Cut and Sew Apparel Manufacturing	26	0.00	100.00
4482	Shoe Stores	111	0.00	100.00
3369	Other Transportation Equipment Manufacturing	49	0.00	100.00
4246	Chemical and Allied Products Merchant Wholesalers	333	0.00	100.00
3333	Commercial and Service Industry Machinery Manufacturing	40	0.00	100.00
	<i>SERVICES</i>	<i>461,298</i>		

Source: See Table 4.1.

Table 4.4. Commodities—Number of Businesses and Industry Weight, by NAICS Code, 2010

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	5,910	16.24	16.24
4247	Petroleum and Petroleum Products Merchant Wholesalers	931	11.85	28.09
3365	Railroad Rolling Stock Manufacturing	30	10.75	38.84
5171	Wired Telecommunications Carriers	1,795	8.06	46.90
3361	Motor Vehicle Manufacturing	27	7.39	54.29
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	2,538	3.17	57.46
3121	Beverage Manufacturing	89	2.67	60.13
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	1,668	2.64	62.76
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	6,345	2.43	65.19
4411	Automobile Dealers	2,687	2.35	67.54
2212	Natural Gas Distribution	168	2.11	69.65
4246	Chemical and Allied Products Merchant Wholesalers	1,383	1.51	71.17
2382	Building Equipment Contractors	25,023	1.42	72.59
5112	Software Publishers	1,819	1.41	74.01
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	1,495	1.38	75.38
3342	Communications Equipment Manufacturing	610	1.32	76.71
5415	Computer Systems Design and Related Services	13,868	1.29	77.99
4241	Paper and Paper Product Merchant Wholesalers	1,901	1.27	79.26
3251	Basic Chemical Manufacturing	405	1.06	80.32
4236	Electrical and Electronic Goods Merchant Wholesalers	4,885	0.97	81.29
3323	Architectural and Structural Metals Manufacturing	820	0.93	82.22
3231	Printing and Related Support Activities	5,343	0.92	83.13
3254	Pharmaceutical and Medicine Manufacturing	869	0.87	84.00
2362	Nonresidential Building Construction	4,208	0.86	84.86
5416	Management, Scientific, and Technical Consulting Services	9,392	0.69	85.55
4242	Drugs and Druggists' Sundries Merchant Wholesalers	1,852	0.63	86.19
2373	Highway, Street, and Bridge Construction	1,639	0.60	86.79
5413	Architectural, Engineering, and Related Services	12,511	0.59	87.38
2389	Other Specialty Trade Contractors	11,796	0.56	87.94
5417	Scientific Research and Development Services	224	0.55	88.48
3341	Computer and Peripheral Equipment Manufacturing	485	0.49	88.97
3391	Medical Equipment and Supplies Manufacturing	614	0.38	89.35
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	1,188	0.37	89.72
3331	Agriculture, Construction, and Mining Machinery Manufacturing	155	0.35	90.07
3241	Petroleum and Coal Products Manufacturing	146	0.34	90.41
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers	1,933	0.33	90.74
5179	Other Telecommunications	3,308	0.32	91.06
5321	Automotive Equipment Rental and Leasing	2,190	0.31	91.38

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
4244	Grocery and Related Product Merchant Wholesalers	2,829	0.31	91.68
6215	Medical and Diagnostic Laboratories	1,469	0.30	91.98
2379	Other Heavy and Civil Engineering Construction	156	0.30	92.28
3222	Converted Paper Product Manufacturing	352	0.28	92.57
3116	Animal Slaughtering and Processing	8	0.27	92.83
4431	Electronics and Appliance Stores	5,995	0.26	93.10
4233	Lumber and Other Construction Materials Merchant Wholesalers	2,304	0.25	93.35
5616	Investigation and Security Services	2,435	0.24	93.59
3311	Iron and Steel Mills and Ferroalloy Manufacturing	178	0.24	93.83
4422	Home Furnishings Stores	2,277	0.23	94.07
5111	Newspaper, Periodical, Book, and Directory Publishers	4,304	0.23	94.30
5221	Depository Credit Intermediation	5,711	0.21	94.51
3353	Electrical Equipment Manufacturing	355	0.18	94.69
7132	Gambling Industries	55	0.18	94.87
2383	Building Finishing Contractors	9,798	0.17	95.04
5622	Waste Treatment and Disposal	372	0.16	95.20
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	1,431	0.16	95.36
4532	Office Supplies, Stationery, and Gift Stores	1,239	0.16	95.52
3211	Sawmills and Wood Preservation	59	0.15	95.67
4882	Support Activities for Rail Transportation	291	0.14	95.81
3359	Other Electrical Equipment and Component Manufacturing	667	0.14	95.95
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	303	0.14	96.09
5613	Employment Services	5,194	0.13	96.22
3273	Cement and Concrete Product Manufacturing	180	0.12	96.34
5172	Wireless Telecommunications Carriers (except Satellite)	2,186	0.12	96.46
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	2,227	0.12	96.58
3259	Other Chemical Product and Preparation Manufacturing	302	0.12	96.70
5242	Agencies, Brokerages, and Other Insurance Related Activities	11,197	0.11	96.82
3399	Other Miscellaneous Manufacturing	4,421	0.11	96.93
5222	Nondepository Credit Intermediation	948	0.11	97.04
5182	Data Processing, Hosting, and Related Services	2,137	0.11	97.16
3339	Other General Purpose Machinery Manufacturing	463	0.10	97.26
4461	Health and Personal Care Stores	5,159	0.10	97.36
3321	Forging and Stamping	51	0.10	97.46
6243	Vocational Rehabilitation Services	777	0.10	97.56
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	169	0.10	97.66
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	1,069	0.09	97.75
3362	Motor Vehicle Body and Trailer Manufacturing	46	0.09	97.84

M/WBE Availability in New York's Marketplace

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
5617	Services to Buildings and Dwellings	7,716	0.09	97.93
2211	Electric Power Generation, Transmission and Distribution	63	0.08	98.01
3221	Pulp, Paper, and Paperboard Mills	60	0.08	98.08
3118	Bakeries and Tortilla Manufacturing	590	0.08	98.16
3315	Foundries	48	0.07	98.23
3333	Commercial and Service Industry Machinery Manufacturing	479	0.07	98.30
3344	Semiconductor and Other Electronic Component Manufacturing	630	0.07	98.37
3364	Aerospace Product and Parts Manufacturing	82	0.07	98.43
5241	Insurance Carriers	367	0.06	98.50
3313	Alumina and Aluminum Production and Processing	19	0.06	98.55
5414	Specialized Design Services	10,199	0.06	98.61
4841	General Freight Trucking	5,223	0.06	98.67
3335	Metalworking Machinery Manufacturing	307	0.05	98.72
3152	Cut and Sew Apparel Manufacturing	92	0.05	98.77
5191	Other Information Services	32	0.05	98.82
4421	Furniture Stores	3,845	0.05	98.87
3133	Textile and Fabric Finishing and Fabric Coating Mills	143	0.05	98.92
4412	Other Motor Vehicle Dealers	944	0.05	98.97
8111	Automotive Repair and Maintenance	13,729	0.05	99.01
5629	Remediation and Other Waste Management Services	326	0.04	99.05
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	273	0.04	99.09
3272	Glass and Glass Product Manufacturing	182	0.04	99.14
5121	Motion Picture and Video Industries	4,998	0.04	99.18
6219	Other Ambulatory Health Care Services	4,443	0.04	99.22
3326	Spring and Wire Product Manufacturing	146	0.04	99.26
2381	Foundation, Structure, and Building Exterior Contractors	1,933	0.04	99.30
4851	Urban Transit Systems	213	0.04	99.34
3261	Plastics Product Manufacturing	773	0.03	99.37
3351	Electric Lighting Equipment Manufacturing	128	0.03	99.40
5259	Other Investment Pools and Funds	885	0.03	99.44
8112	Electronic and Precision Equipment Repair and Maintenance	2,901	0.03	99.47
3332	Industrial Machinery Manufacturing	170	0.03	99.50
4511	Sporting Goods, Hobby, and Musical Instrument Stores	2,886	0.03	99.52
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	38	0.03	99.55
2371	Utility System Construction	637	0.03	99.58
3324	Boiler, Tank, and Shipping Container Manufacturing	30	0.03	99.60
6211	Offices of Physicians	38,802	0.03	99.63
8129	Other Personal Services	1,174	0.02	99.65
3329	Other Fabricated Metal Product Manufacturing	211	0.02	99.67
4239	Miscellaneous Durable Goods Merchant Wholesalers	3,794	0.02	99.70
4543	Direct Selling Establishments	1,396	0.02	99.72
5614	Business Support Services	1,311	0.02	99.74

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
4232	Furniture and Home Furnishing Merchant Wholesalers	1,356	0.02	99.76
3372	Office Furniture (including Fixtures) Manufacturing	139	0.02	99.78
4883	Support Activities for Water Transportation	65	0.02	99.80
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	68	0.02	99.82
4884	Support Activities for Road Transportation	2,268	0.02	99.83
4441	Building Material and Supplies Dealers	3,874	0.01	99.85
3343	Audio and Video Equipment Manufacturing	241	0.01	99.86
5418	Advertising, Public Relations, and Related Services	4,576	0.01	99.88
4881	Support Activities for Air Transportation	6	0.01	99.89
4859	Other Transit and Ground Passenger Transportation	942	0.01	99.90
3255	Paint, Coating, and Adhesive Manufacturing	142	0.01	99.91
4855	Charter Bus Industry	295	0.01	99.92
5411	Legal Services	34,694	0.01	99.93
4854	School and Employee Bus Transportation	389	0.01	99.94
3363	Motor Vehicle Parts Manufacturing	41	0.01	99.95
3159	Apparel Accessories and Other Apparel Manufacturing	372	0.01	99.95
5239	Other Financial Investment Activities	281	0.01	99.96
3169	Other Leather and Allied Product Manufacturing	29	0.01	99.97
3262	Rubber Product Manufacturing	169	0.01	99.97
3115	Dairy Product Manufacturing	43	0.00	99.98
3314	Nonferrous Metal (except Aluminum) Production and Processing	20	0.00	99.98
3119	Other Food Manufacturing	237	0.00	99.98
3219	Other Wood Product Manufacturing	75	0.00	99.99
3149	Other Textile Product Mills	340	0.00	99.99
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	230	0.00	99.99
7221	Full-Service Restaurants	103	0.00	99.99
4922	Local Messengers and Local Delivery	136	0.00	100.00
8114	Personal and Household Goods Repair and Maintenance	1,270	0.00	100.00
4442	Lawn and Garden Equipment and Supplies Stores	914	0.00	100.00
5311	Lessors of Real Estate	1,246	0.00	100.00
3271	Clay Product and Refractory Manufacturing	17	0.00	100.00
3132	Fabric Mills	103	0.00	100.00
3328	Coating, Engraving, Heat Treating, and Allied Activities	302	0.00	100.00
4512	Book, Periodical, and Music Stores	1,715	0.00	100.00
4931	Warehousing and Storage	1,368	0.00	100.00
3322	Cutlery and Handtool Manufacturing	218	0.00	100.00
	<i>COMMODITIES</i>	<i>381,824</i>		

Source: See Table 4.1.

Table 4.5. Construction—Number of Listed M/WBEs and Industry Weight, by NAICS Code, 2010

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
2373	Highway, Street, and Bridge Construction	154	23.36	23.36
2382	Building Equipment Contractors	1,344	20.74	44.10
2362	Nonresidential Building Construction	530	10.88	54.98
2381	Foundation, Structure, and Building Exterior Contractors	609	8.73	63.72
2383	Building Finishing Contractors	778	5.45	69.17
2389	Other Specialty Trade Contractors	668	5.11	74.28
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	76	4.20	78.47
5413	Architectural, Engineering, and Related Services	1,665	3.83	82.31
3323	Architectural and Structural Metals Manufacturing	136	2.58	84.89
4233	Lumber and Other Construction Materials Merchant Wholesalers	190	1.37	86.25
2379	Other Heavy and Civil Engineering Construction	13	1.23	87.49
5416	Management, Scientific, and Technical Consulting Services	1,891	1.20	88.68
4841	General Freight Trucking	423	1.20	89.88
3273	Cement and Concrete Product Manufacturing	10	0.96	90.84
4236	Electrical and Electronic Goods Merchant Wholesalers	543	0.95	91.78
5617	Services to Buildings and Dwellings	1,454	0.81	92.59
2371	Utility System Construction	50	0.73	93.32
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	171	0.72	94.03
5629	Remediation and Other Waste Management Services	59	0.65	94.69
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	628	0.64	95.33
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	70	0.58	95.91
5622	Waste Treatment and Disposal	68	0.55	96.46
4232	Furniture and Home Furnishing Merchant Wholesalers	393	0.42	96.88
3365	Railroad Rolling Stock Manufacturing	1	0.38	97.26
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	684	0.34	97.60
4247	Petroleum and Petroleum Products Merchant Wholesalers	35	0.19	97.78
3341	Computer and Peripheral Equipment Manufacturing	31	0.15	97.94
5614	Business Support Services	77	0.14	98.08
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	82	0.13	98.21
5415	Computer Systems Design and Related Services	2,182	0.12	98.33
4422	Home Furnishings Stores	493	0.11	98.44
3399	Other Miscellaneous Manufacturing	473	0.09	98.53
3324	Boiler, Tank, and Shipping Container Manufacturing	2	0.09	98.62
3329	Other Fabricated Metal Product Manufacturing	49	0.09	98.71
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	98	0.07	98.78

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
5172	Wireless Telecommunications Carriers (except Satellite)	75	0.07	98.86
5616	Investigation and Security Services	279	0.06	98.92
3339	Other General Purpose Machinery Manufacturing	43	0.06	98.98
3219	Other Wood Product Manufacturing	53	0.06	99.04
3353	Electrical Equipment Manufacturing	27	0.06	99.10
3342	Communications Equipment Manufacturing	54	0.05	99.16
5221	Depository Credit Intermediation	35	0.05	99.21
8112	Electronic and Precision Equipment Repair and Maintenance	150	0.05	99.26
5418	Advertising, Public Relations, and Related Services	744	0.04	99.30
5241	Insurance Carriers	73	0.04	99.34
4239	Miscellaneous Durable Goods Merchant Wholesalers	767	0.04	99.39
4441	Building Material and Supplies Dealers	348	0.04	99.43
3261	Plastics Product Manufacturing	70	0.04	99.47
5414	Specialized Design Services	2,029	0.04	99.50
5613	Employment Services	910	0.03	99.54
5621	Waste Collection	3	0.03	99.57
3351	Electric Lighting Equipment Manufacturing	9	0.03	99.59
4246	Chemical and Allied Products Merchant Wholesalers	135	0.02	99.62
3359	Other Electrical Equipment and Component Manufacturing	37	0.02	99.64
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	22	0.02	99.66
3312	Steel Product Manufacturing from Purchased Steel	9	0.02	99.69
3272	Glass and Glass Product Manufacturing	36	0.02	99.71
3262	Rubber Product Manufacturing	27	0.02	99.72
4241	Paper and Paper Product Merchant Wholesalers	258	0.01	99.74
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	65	0.01	99.75
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	126	0.01	99.76
2372	Land Subdivision	105	0.01	99.78
3331	Agriculture, Construction, and Mining Machinery Manufacturing	8	0.01	99.79
3271	Clay Product and Refractory Manufacturing	42	0.01	99.80
2123	Nonmetallic Mineral Mining and Quarrying	14	0.01	99.81
3279	Other Nonmetallic Mineral Product Manufacturing	22	0.01	99.82
3332	Industrial Machinery Manufacturing	24	0.01	99.83
3333	Commercial and Service Industry Machinery Manufacturing	35	0.01	99.84
3326	Spring and Wire Product Manufacturing	7	0.01	99.85
5171	Wired Telecommunications Carriers	168	0.01	99.86
3372	Office Furniture (including Fixtures) Manufacturing	27	0.01	99.87
5417	Scientific Research and Development Services	25	0.01	99.88
5312	Offices of Real Estate Agents and Brokers	3,296	0.01	99.89
5321	Automotive Equipment Rental and Leasing	18	0.01	99.90
1153	Support Activities for Forestry	4	0.01	99.90
5411	Legal Services	2,515	0.01	99.91

M/WBE Availability in New York's Marketplace

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
2211	Electric Power Generation, Transmission and Distribution	1	0.01	99.91
5311	Lessors of Real Estate	139	0.01	99.92
3315	Foundries	4	0.01	99.92
4442	Lawn and Garden Equipment and Supplies Stores	77	0.01	99.93
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	158	0.00	99.93
3311	Iron and Steel Mills and Ferroalloy Manufacturing	11	0.00	99.94
8111	Automotive Repair and Maintenance	765	0.00	99.94
3222	Converted Paper Product Manufacturing	21	0.00	99.94
3241	Petroleum and Coal Products Manufacturing	8	0.00	99.95
2131	Support Activities for Mining	3	0.00	99.95
2212	Natural Gas Distribution	3	0.00	99.95
3255	Paint, Coating, and Adhesive Manufacturing	24	0.00	99.96
1151	Support Activities for Crop Production	11	0.00	99.96
5231	Securities and Commodity Contracts Intermediation and Brokerage	23	0.00	99.96
5419	Other Professional, Scientific, and Technical Services	292	0.00	99.96
4884	Support Activities for Road Transportation	64	0.00	99.97
3321	Forging and Stamping	36	0.00	99.97
5111	Newspaper, Periodical, Book, and Directory Publishers	183	0.00	99.97
5612	Facilities Support Services	34	0.00	99.97
8129	Other Personal Services	41	0.00	99.97
3231	Printing and Related Support Activities	83	0.00	99.97
3362	Motor Vehicle Body and Trailer Manufacturing	6	0.00	99.98
5179	Other Telecommunications	120	0.00	99.98
4431	Electronics and Appliance Stores	453	0.00	99.98
3251	Basic Chemical Manufacturing	17	0.00	99.98
4421	Furniture Stores	318	0.00	99.98
3313	Alumina and Aluminum Production and Processing	1	0.00	99.98
3364	Aerospace Product and Parts Manufacturing	5	0.00	99.98
6114	Business Schools and Computer and Management Training	79	0.00	99.98
4859	Other Transit and Ground Passenger Transportation	90	0.00	99.99
4511	Sporting Goods, Hobby, and Musical Instrument Stores	201	0.00	99.99
3335	Metalworking Machinery Manufacturing	11	0.00	99.99
1119	Other Crop Farming	67	0.00	99.99
1114	Greenhouse, Nursery, and Floriculture Production	26	0.00	99.99
3259	Other Chemical Product and Preparation Manufacturing	31	0.00	99.99
4242	Drugs and Druggists' Sundries Merchant Wholesalers	231	0.00	99.99
3344	Semiconductor and Other Electronic Component Manufacturing	58	0.00	99.99
6215	Medical and Diagnostic Laboratories	64	0.00	99.99
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	20	0.00	99.99
3149	Other Textile Product Mills	41	0.00	99.99
3141	Textile Furnishings Mills	49	0.00	99.99
4821	Rail Transportation	2	0.00	99.99

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
5152	Cable and Other Subscription Programming	14	0.00	99.99
5615	Travel Arrangement and Reservation Services	1,253	0.00	99.99
3328	Coating, Engraving, Heat Treating, and Allied Activities	53	0.00	100.00
4411	Automobile Dealers	72	0.00	100.00
7211	Traveler Accommodation	171	0.00	100.00
4921	Couriers and Express Delivery Services	49	0.00	100.00
4885	Freight Transportation Arrangement	283	0.00	100.00
5112	Software Publishers	152	0.00	100.00
5222	Nondepository Credit Intermediation	78	0.00	100.00
4412	Other Motor Vehicle Dealers	12	0.00	100.00
3133	Textile and Fabric Finishing and Fabric Coating Mills	11	0.00	100.00
8114	Personal and Household Goods Repair and Maintenance	131	0.00	100.00
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers	167	0.00	100.00
3379	Other Furniture Related Product Manufacturing	18	0.00	100.00
4244	Grocery and Related Product Merchant Wholesalers	19	0.00	100.00
4543	Direct Selling Establishments	3	0.00	100.00
4452	Specialty Food Stores	140	0.00	100.00
6243	Vocational Rehabilitation Services	21	0.00	100.00
4883	Support Activities for Water Transportation	6	0.00	100.00
5174	Satellite Telecommunications	2	0.00	100.00
4541	Electronic Shopping and Mail-Order Houses	289	0.00	100.00
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	6	0.00	100.00
3361	Motor Vehicle Manufacturing	1	0.00	100.00
4881	Support Activities for Air Transportation	-	0.00	100.00
3121	Beverage Manufacturing	1	0.00	100.00
8123	Drycleaning and Laundry Services	982	0.00	100.00
4413	Automotive Parts, Accessories, and Tire Stores	93	0.00	100.00
7223	Special Food Services	22	0.00	100.00
5251	Insurance and Employee Benefit Funds	-	0.00	100.00
3343	Audio and Video Equipment Manufacturing	19	0.00	100.00
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	10	0.00	100.00
3118	Bakeries and Tortilla Manufacturing	270	0.00	100.00
2213	Water, Sewage and Other Systems	7	0.00	100.00
1124	Sheep and Goat Farming	13	0.00	100.00
8121	Personal Care Services	14	0.00	100.00
5223	Activities Related to Credit Intermediation	159	0.00	100.00
	<i>CONSTRUCTION</i>	<i>37,236</i>		

Source: See Table 4.1.

Table 4.6. CRS—Number of Listed M/WBEs and Industry Weight, by NAICS Code, 2010

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
5413	Architectural, Engineering, and Related Services	1,665	66.13	66.13
2362	Nonresidential Building Construction	530	11.79	77.91
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	400	7.17	85.08
5614	Business Support Services	77	3.03	88.11
2373	Highway, Street, and Bridge Construction	154	2.56	90.67
5415	Computer Systems Design and Related Services	2,182	2.08	92.75
3323	Architectural and Structural Metals Manufacturing	88	0.89	93.64
2382	Building Equipment Contractors	1,344	0.71	94.35
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	15	0.67	95.02
7139	Other Amusement and Recreation Industries	25	0.65	95.67
2389	Other Specialty Trade Contractors	668	0.65	96.32
3273	Cement and Concrete Product Manufacturing	-	0.55	96.87
5416	Management, Scientific, and Technical Consulting Services	2,215	0.53	97.40
5629	Remediation and Other Waste Management Services	59	0.37	97.77
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	565	0.28	98.05
5418	Advertising, Public Relations, and Related Services	1,102	0.25	98.30
5617	Services to Buildings and Dwellings	1,379	0.16	98.45
5616	Investigation and Security Services	217	0.13	98.59
5417	Scientific Research and Development Services	25	0.12	98.71
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	82	0.10	98.81
5312	Offices of Real Estate Agents and Brokers	3,296	0.10	98.91
3399	Other Miscellaneous Manufacturing	194	0.09	99.00
3365	Railroad Rolling Stock Manufacturing	1	0.09	99.09
3231	Printing and Related Support Activities	83	0.09	99.18
4882	Support Activities for Rail Transportation	27	0.08	99.26
2381	Foundation, Structure, and Building Exterior Contractors	535	0.07	99.33
5414	Specialized Design Services	3,333	0.05	99.39
6211	Offices of Physicians	3,213	0.05	99.43
2379	Other Heavy and Civil Engineering Construction	13	0.05	99.48
5313	Activities Related to Real Estate	17	0.04	99.53
5241	Insurance Carriers	73	0.04	99.57
2371	Utility System Construction	44	0.04	99.60
8111	Automotive Repair and Maintenance	35	0.04	99.64
4236	Electrical and Electronic Goods Merchant Wholesalers	500	0.03	99.67
3328	Coating, Engraving, Heat Treating, and Allied Activities	2	0.03	99.70
4233	Lumber and Other Construction Materials Merchant Wholesalers	187	0.03	99.73
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	30	0.02	99.75

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
6213	Offices of Other Health Practitioners	732	0.02	99.77
4841	General Freight Trucking	318	0.02	99.79
3342	Communications Equipment Manufacturing	38	0.02	99.81
3261	Plastics Product Manufacturing	65	0.02	99.82
3339	Other General Purpose Machinery Manufacturing	29	0.02	99.84
3256	Soap, Cleaning Compound, and Toilet Preparation Mfg.	27	0.01	99.85
5182	Data Processing, Hosting, and Related Services	357	0.01	99.87
2211	Electric Power Generation, Transmission and Distribution	-	0.01	99.88
4412	Other Motor Vehicle Dealers	24	0.01	99.89
5612	Facilities Support Services	34	0.01	99.90
5411	Legal Services	2,515	0.01	99.91
5122	Sound Recording Industries	8	0.01	99.92
7223	Special Food Services	18	0.01	99.93
8129	Other Personal Services	41	0.01	99.94
3364	Aerospace Product and Parts Manufacturing	36	0.01	99.95
4532	Office Supplies, Stationery, and Gift Stores	1,347	0.01	99.95
8112	Electronic and Precision Equipment Repair and Maintenance	106	0.01	99.96
4244	Grocery and Related Product Merchant Wholesalers	150	0.00	99.96
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	69	0.00	99.97
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	2	0.00	99.97
2383	Building Finishing Contractors	451	0.00	99.98
4246	Chemical and Allied Products Merchant Wholesalers	104	0.00	99.98
3152	Cut and Sew Apparel Manufacturing	17	0.00	99.99
3121	Beverage Manufacturing	15	0.00	99.99
1151	Support Activities for Crop Production	11	0.00	99.99
5179	Other Telecommunications	120	0.00	99.99
8123	Drycleaning and Laundry Services	15	0.00	99.99
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	76	0.00	100.00
3259	Other Chemical Product and Preparation Manufacturing	23	0.00	100.00
5321	Automotive Equipment Rental and Leasing	35	0.00	100.00
6215	Medical and Diagnostic Laboratories	64	0.00	100.00
5419	Other Professional, Scientific, and Technical Services	292	0.00	100.00
5622	Waste Treatment and Disposal	25	0.00	100.00
3369	Other Transportation Equipment Manufacturing	1	0.00	100.00
5613	Employment Services	288	0.00	100.00
1153	Support Activities for Forestry	4	0.00	100.00
4441	Building Material and Supplies Dealers	124	0.00	100.00
4239	Miscellaneous Durable Goods Merchant Wholesalers	234	0.00	100.00
5111	Newspaper, Periodical, Book, and Directory Publishers	131	0.00	100.00
	CRS	32,321		

Source: See Table 4.1.

Table 4.7. Services—Number of Listed M/WBEs and Industry Weight, by NAICS Code, 2010

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
4242	Drugs and Druggists' Sundries Merchant Wholesalers	231	63.18	63.18
5241	Insurance Carriers	92	6.53	69.70
6231	Nursing Care Facilities	11	4.71	74.41
5418	Advertising, Public Relations, and Related Services	1,260	4.16	78.57
5415	Computer Systems Design and Related Services	2,189	3.10	81.66
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	708	2.87	84.53
5416	Management, Scientific, and Technical Consulting Services	1,902	2.41	86.95
5182	Data Processing, Hosting, and Related Services	357	2.30	89.25
5613	Employment Services	910	1.38	90.63
4859	Other Transit and Ground Passenger Transportation	90	0.89	91.52
7132	Gambling Industries	1	0.78	92.30
5221	Depository Credit Intermediation	35	0.71	93.02
5413	Architectural, Engineering, and Related Services	1,665	0.67	93.68
2362	Nonresidential Building Construction	530	0.56	94.25
5614	Business Support Services	435	0.53	94.78
2382	Building Equipment Contractors	1,344	0.47	95.25
4236	Electrical and Electronic Goods Merchant Wholesalers	543	0.46	95.71
4461	Health and Personal Care Stores	422	0.45	96.16
7223	Special Food Services	18	0.33	96.49
6243	Vocational Rehabilitation Services	21	0.32	96.81
4841	General Freight Trucking	318	0.27	97.09
5239	Other Financial Investment Activities	57	0.26	97.35
5617	Services to Buildings and Dwellings	1,379	0.23	97.58
5411	Legal Services	2,516	0.21	97.78
5615	Travel Arrangement and Reservation Services	1,369	0.21	97.99
5616	Investigation and Security Services	251	0.17	98.16
6219	Other Ambulatory Health Care Services	198	0.10	98.26
3365	Railroad Rolling Stock Manufacturing	1	0.10	98.36
6211	Offices of Physicians	3,402	0.09	98.45
5112	Software Publishers	152	0.09	98.55
2379	Other Heavy and Civil Engineering Construction	13	0.08	98.62
5622	Waste Treatment and Disposal	68	0.08	98.70
4244	Grocery and Related Product Merchant Wholesalers	324	0.08	98.78
4852	Interurban and Rural Bus Transportation	8	0.07	98.85
8123	Drycleaning and Laundry Services	991	0.07	98.92
4855	Charter Bus Industry	35	0.06	98.98
6215	Medical and Diagnostic Laboratories	64	0.05	99.04
3273	Cement and Concrete Product Manufacturing	5	0.05	99.08
3323	Architectural and Structural Metals Manufacturing	48	0.05	99.13
3339	Other General Purpose Machinery Manufacturing	44	0.04	99.17
3341	Computer and Peripheral Equipment Manufacturing	54	0.04	99.21
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	70	0.04	99.25

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
5179	Other Telecommunications	120	0.03	99.28
2371	Utility System Construction	44	0.03	99.32
3219	Other Wood Product Manufacturing	8	0.03	99.34
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	1	0.03	99.37
6214	Outpatient Care Centers	90	0.03	99.40
8129	Other Personal Services	41	0.03	99.43
2383	Building Finishing Contractors	778	0.03	99.45
4885	Freight Transportation Arrangement	283	0.02	99.48
4921	Couriers and Express Delivery Services	49	0.02	99.50
6213	Offices of Other Health Practitioners	1,745	0.02	99.53
2389	Other Specialty Trade Contractors	668	0.02	99.55
5419	Other Professional, Scientific, and Technical Services	580	0.02	99.57
5629	Remediation and Other Waste Management Services	66	0.02	99.60
5171	Wired Telecommunications Carriers	168	0.02	99.62
3231	Printing and Related Support Activities	726	0.02	99.64
5222	Nondepository Credit Intermediation	23	0.02	99.66
6222	Psychiatric and Substance Abuse Hospitals	32	0.02	99.68
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	56	0.02	99.70
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	76	0.02	99.72
5312	Offices of Real Estate Agents and Brokers	3,296	0.02	99.74
4931	Warehousing and Storage	75	0.02	99.75
5417	Scientific Research and Development Services	25	0.02	99.77
2373	Highway, Street, and Bridge Construction	154	0.02	99.79
5242	Agencies, Brokerages, and Other Insurance Related Activities	902	0.02	99.80
2381	Foundation, Structure, and Building Exterior Contractors	380	0.01	99.82
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers	167	0.01	99.83
5414	Specialized Design Services	3,333	0.01	99.84
4431	Electronics and Appliance Stores	353	0.01	99.85
3118	Bakeries and Tortilla Manufacturing	93	0.01	99.86
5191	Other Information Services	-	0.01	99.87
8112	Electronic and Precision Equipment Repair and Maintenance	106	0.01	99.88
4241	Paper and Paper Product Merchant Wholesalers	230	0.01	99.89
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	171	0.01	99.90
3133	Textile and Fabric Finishing and Fabric Coating Mills	11	0.01	99.90
4233	Lumber and Other Construction Materials Merchant Wholesalers	190	0.01	99.91
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	565	0.01	99.92
1133	Logging	16	0.01	99.93
4541	Electronic Shopping and Mail-Order Houses	289	0.01	99.93
4881	Support Activities for Air Transportation	-	0.01	99.94

M/WBE Availability in New York's Marketplace

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
3121	Beverage Manufacturing	16	0.01	99.94
4922	Local Messengers and Local Delivery	10	0.00	99.95
3343	Audio and Video Equipment Manufacturing	19	0.00	99.95
3342	Communications Equipment Manufacturing	38	0.00	99.96
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	82	0.00	99.96
7211	Traveler Accommodation	171	0.00	99.96
5152	Cable and Other Subscription Programming	14	0.00	99.96
3399	Other Miscellaneous Manufacturing	620	0.00	99.97
5122	Sound Recording Industries	8	0.00	99.97
5111	Newspaper, Periodical, Book, and Directory Publishers	514	0.00	99.97
5121	Motion Picture and Video Industries	448	0.00	99.97
8121	Personal Care Services	14	0.00	99.97
8114	Personal and Household Goods Repair and Maintenance	111	0.00	99.98
5621	Waste Collection	3	0.00	99.98
4532	Office Supplies, Stationery, and Gift Stores	1,540	0.00	99.98
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	10	0.00	99.98
4232	Furniture and Home Furnishing Merchant Wholesalers	393	0.00	99.98
4441	Building Material and Supplies Dealers	124	0.00	99.98
5511	Management of Companies and Enterprises	54	0.00	99.98
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	109	0.00	99.99
3115	Dairy Product Manufacturing	32	0.00	99.99
3222	Converted Paper Product Manufacturing	15	0.00	99.99
3111	Animal Food Manufacturing	1	0.00	99.99
4422	Home Furnishings Stores	166	0.00	99.99
6216	Home Health Care Services	310	0.00	99.99
3116	Animal Slaughtering and Processing	1	0.00	99.99
4239	Miscellaneous Durable Goods Merchant Wholesalers	767	0.00	99.99
6114	Business Schools and Computer and Management Training	79	0.00	99.99
4452	Specialty Food Stores	140	0.00	99.99
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	101	0.00	99.99
5223	Activities Related to Credit Intermediation	159	0.00	99.99
3353	Electrical Equipment Manufacturing	5	0.00	100.00
3149	Other Textile Product Mills	41	0.00	100.00
7115	Independent Artists, Writers, and Performers	193	0.00	100.00
3391	Medical Equipment and Supplies Manufacturing	55	0.00	100.00
5151	Radio and Television Broadcasting	13	0.00	100.00
5172	Wireless Telecommunications Carriers (except Satellite)	75	0.00	100.00
7114	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures	120	0.00	100.00
3324	Boiler, Tank, and Shipping Container Manufacturing	1	0.00	100.00
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	25	0.00	100.00

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
4821	Rail Transportation	2	0.00	100.00
1151	Support Activities for Crop Production	11	0.00	100.00
4442	Lawn and Garden Equipment and Supplies Stores	77	0.00	100.00
4413	Automotive Parts, Accessories, and Tire Stores	93	0.00	100.00
1129	Other Animal Production	107	0.00	100.00
3328	Coating, Engraving, Heat Treating, and Allied Activities	25	0.00	100.00
3254	Pharmaceutical and Medicine Manufacturing	53	0.00	100.00
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	27	0.00	100.00
1153	Support Activities for Forestry	4	0.00	100.00
4543	Direct Selling Establishments	4	0.00	100.00
2211	Electric Power Generation, Transmission and Distribution	1	0.00	100.00
6221	General Medical and Surgical Hospitals	17	0.00	100.00
3332	Industrial Machinery Manufacturing	12	0.00	100.00
3321	Forging and Stamping	36	0.00	100.00
3262	Rubber Product Manufacturing	22	0.00	100.00
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	11	0.00	100.00
3162	Footwear Manufacturing	2	0.00	100.00
7221	Full-Service Restaurants	7	0.00	100.00
4884	Support Activities for Road Transportation	51	0.00	100.00
4247	Petroleum and Petroleum Products Merchant Wholesalers	5	0.00	100.00
3261	Plastics Product Manufacturing	2	0.00	100.00
3113	Sugar and Confectionery Product Manufacturing	-	0.00	100.00
3152	Cut and Sew Apparel Manufacturing	9	0.00	100.00
4482	Shoe Stores	9	0.00	100.00
3369	Other Transportation Equipment Manufacturing	2	0.00	100.00
4246	Chemical and Allied Products Merchant Wholesalers	31	0.00	100.00
3333	Commercial and Service Industry Machinery Manufacturing	10	0.00	100.00
	<i>SERVICES</i>	<i>47,268</i>		

Source: See Table 4.1.

Table 4.8. Commodities—Number of Listed M/WBEs and Industry Weight, by NAICS Code, 2010

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	684	16.24	16.24
4247	Petroleum and Petroleum Products Merchant Wholesalers	35	11.85	28.09
3365	Railroad Rolling Stock Manufacturing	1	10.75	38.84
5171	Wired Telecommunications Carriers	168	8.06	46.90
3361	Motor Vehicle Manufacturing	1	7.39	54.29
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	158	3.17	57.46
3121	Beverage Manufacturing	3	2.67	60.13
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	162	2.64	62.76
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	614	2.43	65.19
4411	Automobile Dealers	72	2.35	67.54
2212	Natural Gas Distribution	3	2.11	69.65
4246	Chemical and Allied Products Merchant Wholesalers	135	1.51	71.17
2382	Building Equipment Contractors	1,344	1.42	72.59
5112	Software Publishers	152	1.41	74.01
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	70	1.38	75.38
3342	Communications Equipment Manufacturing	54	1.32	76.71
5415	Computer Systems Design and Related Services	2,182	1.29	77.99
4241	Paper and Paper Product Merchant Wholesalers	258	1.27	79.26
3251	Basic Chemical Manufacturing	19	1.06	80.32
4236	Electrical and Electronic Goods Merchant Wholesalers	543	0.97	81.29
3323	Architectural and Structural Metals Manufacturing	73	0.93	82.22
3231	Printing and Related Support Activities	727	0.92	83.13
3254	Pharmaceutical and Medicine Manufacturing	55	0.87	84.00
2362	Nonresidential Building Construction	530	0.86	84.86
5416	Management, Scientific, and Technical Consulting Services	1,605	0.69	85.55
4242	Drugs and Druggists' Sundries Merchant Wholesalers	231	0.63	86.19
2373	Highway, Street, and Bridge Construction	154	0.60	86.79
5413	Architectural, Engineering, and Related Services	1,324	0.59	87.38
2389	Other Specialty Trade Contractors	668	0.56	87.94
5417	Scientific Research and Development Services	25	0.55	88.48
3341	Computer and Peripheral Equipment Manufacturing	57	0.49	88.97
3391	Medical Equipment and Supplies Manufacturing	55	0.38	89.35
4235	Metal and Mineral (except Petroleum) Merchant Wholesalers	76	0.37	89.72
3331	Agriculture, Construction, and Mining Machinery Manufacturing	12	0.35	90.07
3241	Petroleum and Coal Products Manufacturing	8	0.34	90.41
4243	Apparel, Piece Goods, and Notions Merchant Wholesalers	205	0.33	90.74
5179	Other Telecommunications	120	0.32	91.06
5321	Automotive Equipment Rental and Leasing	63	0.31	91.38

NAICS Code	NAICS Description	Number of Estab-lishments	Industry Weight	Industry Weight (Cumulative)
4244	Grocery and Related Product Merchant Wholesalers	263	0.31	91.68
6215	Medical and Diagnostic Laboratories	64	0.30	91.98
2379	Other Heavy and Civil Engineering Construction	13	0.30	92.28
3222	Converted Paper Product Manufacturing	41	0.28	92.57
3116	Animal Slaughtering and Processing	1	0.27	92.83
4431	Electronics and Appliance Stores	453	0.26	93.10
4233	Lumber and Other Construction Materials Merchant Wholesalers	187	0.25	93.35
5616	Investigation and Security Services	217	0.24	93.59
3311	Iron and Steel Mills and Ferroalloy Manufacturing	11	0.24	93.83
4422	Home Furnishings Stores	166	0.23	94.07
5111	Newspaper, Periodical, Book, and Directory Publishers	481	0.23	94.30
5221	Depository Credit Intermediation	35	0.21	94.51
3353	Electrical Equipment Manufacturing	35	0.18	94.69
7132	Gambling Industries	1	0.18	94.87
2383	Building Finishing Contractors	621	0.17	95.04
5622	Waste Treatment and Disposal	26	0.16	95.20
8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	82	0.16	95.36
4532	Office Supplies, Stationery, and Gift Stores	193	0.16	95.52
3211	Sawmills and Wood Preservation	4	0.15	95.67
4882	Support Activities for Rail Transportation	27	0.14	95.81
3359	Other Electrical Equipment and Component Manufacturing	33	0.14	95.95
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	27	0.14	96.09
5613	Employment Services	910	0.13	96.22
3273	Cement and Concrete Product Manufacturing	5	0.12	96.34
5172	Wireless Telecommunications Carriers (except Satellite)	75	0.12	96.46
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	171	0.12	96.58
3259	Other Chemical Product and Preparation Manufacturing	31	0.12	96.70
5242	Agencies, Brokerages, and Other Insurance Related Activities	902	0.11	96.82
3399	Other Miscellaneous Manufacturing	664	0.11	96.93
5222	Nondepository Credit Intermediation	23	0.11	97.04
5182	Data Processing, Hosting, and Related Services	357	0.11	97.16
3339	Other General Purpose Machinery Manufacturing	45	0.10	97.26
4461	Health and Personal Care Stores	290	0.10	97.36
3321	Forging and Stamping	4	0.10	97.46
6243	Vocational Rehabilitation Services	21	0.10	97.56
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	8	0.10	97.66
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	87	0.09	97.75
3362	Motor Vehicle Body and Trailer Manufacturing	2	0.09	97.84

M/WBE Availability in New York's Marketplace

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
5617	Services to Buildings and Dwellings	420	0.09	97.93
2211	Electric Power Generation, Transmission and Distribution	1	0.08	98.01
3221	Pulp, Paper, and Paperboard Mills	4	0.08	98.08
3118	Bakeries and Tortilla Manufacturing	93	0.08	98.16
3315	Foundries	3	0.07	98.23
3333	Commercial and Service Industry Machinery Manufacturing	45	0.07	98.30
3344	Semiconductor and Other Electronic Component Manufacturing	85	0.07	98.37
3364	Aerospace Product and Parts Manufacturing	7	0.07	98.43
5241	Insurance Carriers	16	0.06	98.50
3313	Alumina and Aluminum Production and Processing	3	0.06	98.55
5414	Specialized Design Services	3,333	0.06	98.61
4841	General Freight Trucking	318	0.06	98.67
3335	Metalworking Machinery Manufacturing	18	0.05	98.72
3152	Cut and Sew Apparel Manufacturing	17	0.05	98.77
5191	Other Information Services	-	0.05	98.82
4421	Furniture Stores	318	0.05	98.87
3133	Textile and Fabric Finishing and Fabric Coating Mills	11	0.05	98.92
4412	Other Motor Vehicle Dealers	27	0.05	98.97
8111	Automotive Repair and Maintenance	719	0.05	99.01
5629	Remediation and Other Waste Management Services	59	0.04	99.05
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	50	0.04	99.09
3272	Glass and Glass Product Manufacturing	31	0.04	99.14
5121	Motion Picture and Video Industries	425	0.04	99.18
6219	Other Ambulatory Health Care Services	198	0.04	99.22
3326	Spring and Wire Product Manufacturing	7	0.04	99.26
2381	Foundation, Structure, and Building Exterior Contractors	246	0.04	99.30
4851	Urban Transit Systems	6	0.04	99.34
3261	Plastics Product Manufacturing	69	0.03	99.37
3351	Electric Lighting Equipment Manufacturing	12	0.03	99.40
5259	Other Investment Pools and Funds	20	0.03	99.44
8112	Electronic and Precision Equipment Repair and Maintenance	256	0.03	99.47
3332	Industrial Machinery Manufacturing	14	0.03	99.50
4511	Sporting Goods, Hobby, and Musical Instrument Stores	201	0.03	99.52
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing	2	0.03	99.55
2371	Utility System Construction	44	0.03	99.58
3324	Boiler, Tank, and Shipping Container Manufacturing	2	0.03	99.60
6211	Offices of Physicians	3,213	0.03	99.63
8129	Other Personal Services	41	0.02	99.65
3329	Other Fabricated Metal Product Manufacturing	30	0.02	99.67
4239	Miscellaneous Durable Goods Merchant Wholesalers	294	0.02	99.70
4543	Direct Selling Establishments	86	0.02	99.72
5614	Business Support Services	392	0.02	99.74

NAICS Code	NAICS Description	Number of Establishments	Industry Weight	Industry Weight (Cumulative)
4232	Furniture and Home Furnishing Merchant Wholesalers	132	0.02	99.76
3372	Office Furniture (including Fixtures) Manufacturing	12	0.02	99.78
4883	Support Activities for Water Transportation	5	0.02	99.80
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing	4	0.02	99.82
4884	Support Activities for Road Transportation	51	0.02	99.83
4441	Building Material and Supplies Dealers	279	0.01	99.85
3343	Audio and Video Equipment Manufacturing	19	0.01	99.86
5418	Advertising, Public Relations, and Related Services	634	0.01	99.88
4881	Support Activities for Air Transportation	-	0.01	99.89
4859	Other Transit and Ground Passenger Transportation	90	0.01	99.90
3255	Paint, Coating, and Adhesive Manufacturing	13	0.01	99.91
4855	Charter Bus Industry	35	0.01	99.92
5411	Legal Services	2,515	0.01	99.93
4854	School and Employee Bus Transportation	37	0.01	99.94
3363	Motor Vehicle Parts Manufacturing	1	0.01	99.95
3159	Apparel Accessories and Other Apparel Manufacturing	49	0.01	99.95
5239	Other Financial Investment Activities	7	0.01	99.96
3169	Other Leather and Allied Product Manufacturing	7	0.01	99.97
3262	Rubber Product Manufacturing	25	0.01	99.97
3115	Dairy Product Manufacturing	2	0.00	99.98
3314	Nonferrous Metal (except Aluminum) Production and Processing	4	0.00	99.98
3119	Other Food Manufacturing	27	0.00	99.98
3219	Other Wood Product Manufacturing	8	0.00	99.99
3149	Other Textile Product Mills	47	0.00	99.99
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	25	0.00	99.99
7221	Full-Service Restaurants	7	0.00	99.99
4922	Local Messengers and Local Delivery	10	0.00	100.00
8114	Personal and Household Goods Repair and Maintenance	131	0.00	100.00
4442	Lawn and Garden Equipment and Supplies Stores	77	0.00	100.00
5311	Lessors of Real Estate	91	0.00	100.00
3271	Clay Product and Refractory Manufacturing	1	0.00	100.00
3132	Fabric Mills	8	0.00	100.00
3328	Coating, Engraving, Heat Treating, and Allied Activities	26	0.00	100.00
4512	Book, Periodical, and Music Stores	235	0.00	100.00
4931	Warehousing and Storage	72	0.00	100.00
3322	Cutlery and Handtool Manufacturing	13	0.00	100.00
	<i>COMMODITIES</i>	35,057		

Source: See Table 4.1.

Table 4.9. Listed M/WBE Survey—Amount of Misclassification, by NAICS Code Grouping

Listed M/WBE By NAICS Code Grouping	Misclassification (Percentage non- minority male)	Percentage Actually M/WBE-owned	Number of Businesses Interviewed
NAICS 236-A	13.5	86.5	223
NAICS 237-A	30.3	69.7	99
NAICS 238-A	31.2	68.8	218
NAICS 31-33-A	36.8	63.2	38
NAICS 48-49-A	24.7	75.3	89
NAICS 423-A	25.4	74.6	122
NAICS 424-A	15.5	84.5	116
NAICS 441, 447-A	55.9	44.1	34
NAICS 52-53-A	15.3	84.7	131
NAICS OTHR-A	16.5	83.5	97
NAICS 62-A	23.9	76.1	67
NAICS 54-A	12.6	87.4	111
NAICS 11, 21, 22-B	39.0	61.0	59
NAICS 31-33-B	18.0	82.0	61
NAICS 48-49-B	12.1	87.9	58
NAICS 42-B	16.7	83.3	54
NAICS 52-53-B	27.5	72.5	40
NAICS OTHR-B	16.7	83.3	48
NAICS 54, 62-B	15.9	84.1	63
All NAICS Codes	21.8	78.2	1,728

Source: NERA/Abt SRBI telephone surveys, 2010.

Note: Two groupings of strata, A and B, were created. NAICS codes reflecting approximately 90 percent of all contract and subcontract spending were stratified into group A with the balance stratified into group B.

Table 4.10. Listed M/WBE Survey—Amount of Misclassification, by Putative M/WBE Type

Putative Race/Sex	Misclassification (Percentage Non-minority Male)	Misclassification (Percentage Other M/WBE Type)	Percentage Correctly Classified	Number of Businesses Interviewed
African-American (either sex)	9.0	18.0	73.0	178
Hispanic (either sex)	31.7	9.0	59.3	290
Asian (either sex)	15.2	8.4	76.4	309
Native American (either sex)	43.8	37.4	18.8	16
Non-minority Female	23.8	15.2	61.0	774
Unknown	19.3	80.7	0.0	161
All M/WBE Types	21.8	19.6	58.6	1,728

Source and Notes: See Table 4.9. Similar calculations, not shown here, were performed for each stratum.

Table 4.11. Unclassified Businesses Survey —By NAICS Code Grouping

Listed M/WBE By SIC Code Grouping	Percentage Actually non-minority male- owned	Percentage M/WBE	Number of Businesses Interviewed
NAICS 236-A	86.4	13.6	199
NAICS 237-A	84.4	15.6	256
NAICS 238-A	81.2	18.8	149
NAICS 31-33-A	82.8	17.2	192
NAICS 48-49-A	76.2	23.8	63
NAICS 423-A	83.7	16.3	98
NAICS 424-A	65.4	34.6	81
NAICS 441, 447-A	89.1	10.9	137
NAICS 52-53-A	76.7	23.3	73
NAICS OTHR-A	71.1	28.9	83
NAICS 62-A	77.7	22.3	112
NAICS 54-A	84.0	16.0	94
NAICS 11, 21, 22-B	81.4	18.6	43
NAICS 31-33-B	72.3	27.7	47
NAICS 48-49-B	75.8	24.2	33
NAICS 42-B	74.4	25.6	39
NAICS 52-53-B	73.8	26.2	42
NAICS OTHR-B	60.5	39.5	38
NAICS 54, 62-B	64.4	35.6	45
All NAICS Codes	80.0	20.0	1,824

Source and Notes: See Table 4.9.

Table 4.12. Unclassified Businesses Survey—By Race and Sex

Verified Race/Sex	Number of Businesses Interviewed	Percentage of Total
Non-minority male	1,460	80.0
Non-minority Female	163	8.9
African-American (either sex)	50	2.7
Hispanic (either sex)	67	3.7
Asian (either sex)	78	4.3
Native American (either sex)	6	0.3
TOTAL	1,824	100.0

Source and Notes: See Table 4.9. Similar calculations, not shown here, were performed for each stratum.

M/WBE Availability in New York's Marketplace**Table 4.13. Detailed M/WBE Availability—Construction, 2010**

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Highway, Street, and Bridge Construction (NAICS 2373)	1.48	6.15	1.84	0.32	11.12	20.90	79.10
Building Equipment Contractors (NAICS 2382)	4.74	7.89	2.51	0.10	7.44	22.68	77.32
Nonresidential Building Construction (NAICS 2362)	3.45	4.39	6.01	0.16	9.20	23.20	76.80
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	4.12	8.55	2.65	0.28	9.14	24.74	75.26
Building Finishing Contractors (NAICS 2383)	2.83	6.09	4.04	0.05	8.81	21.83	78.17
Other Specialty Trade Contractors (NAICS 2389)	3.92	7.12	2.68	0.05	8.29	22.06	77.94
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)	0.30	0.62	10.95	0.08	8.03	19.99	80.01
Architectural, Engineering, and Related Services (NAICS 5413)	3.19	4.73	4.06	1.03	11.93	24.93	75.07
Architectural and Structural Metals Manufacturing (NAICS 3323)	3.48	2.29	3.74	0.59	13.57	23.66	76.34
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	9.93	1.48	8.44	2.45	8.13	30.44	69.56
Other Heavy and Civil Engineering Construction (NAICS 2379)	2.44	8.56	1.63	0.30	9.13	22.05	77.95
Management, Scientific, and Technical Consulting Services (NAICS 5416)	3.48	4.69	2.64	1.06	17.34	29.21	70.79
General Freight Trucking (NAICS 4841)	5.65	9.49	4.16	0.21	7.46	26.98	73.02
Cement and Concrete Product Manufacturing (NAICS 3273)	2.14	1.17	2.47	0.60	10.26	16.65	83.35
Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	2.87	1.72	10.05	0.64	9.71	24.99	75.01
Services to Buildings and Dwellings (NAICS 5617)	4.83	11.70	5.40	0.07	16.50	38.50	61.50
Utility System Construction (NAICS 2371)	0.97	3.44	6.43	0.01	11.39	22.24	77.76
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)	10.26	1.38	8.28	2.27	8.09	30.28	69.72
Remediation and Other Waste Management Services (NAICS 5629)	4.71	7.53	5.56	0.73	13.40	31.93	68.07

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	8.36	1.37	8.94	1.94	8.99	29.60	70.40
Commercial and Industrial Machinery and Equipment Rental and Leasing (NAICS 5324)	5.57	12.67	5.11	0.00	18.44	41.79	58.21
Waste Treatment and Disposal (NAICS 5622)	0.79	6.89	9.01	0.14	11.59	28.41	71.59
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)	10.38	1.16	8.57	2.27	9.18	31.57	68.43
Railroad Rolling Stock Manufacturing (NAICS 3365)	1.74	0.87	2.11	0.73	11.76	17.21	82.79
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	2.32	1.37	12.16	0.61	9.46	25.93	74.07
Petroleum and Petroleum Products Merchant Wholesalers (NAICS 4247)	3.20	2.69	14.00	0.20	16.01	36.10	63.90
Computer and Peripheral Equipment Manufacturing (NAICS 3341)	4.17	3.13	7.66	0.02	20.04	35.02	64.98
Business Support Services (NAICS 5614)	6.11	10.97	5.36	0.06	20.92	43.42	56.58
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Main	5.85	12.80	5.24	0.00	18.04	41.93	58.07
Computer Systems Design and Related Services (NAICS 5415)	5.05	5.90	10.56	0.29	15.61	37.41	62.59
Home Furnishings Stores (NAICS 4422)	10.23	1.55	7.91	2.35	8.46	30.51	69.49
Other Miscellaneous Manufacturing (NAICS 3399)	4.37	3.06	5.76	0.07	21.86	35.12	64.88
Boiler, Tank, and Shipping Container Manufacturing (NAICS 3324)	5.06	2.75	3.94	0.00	19.67	31.42	68.58
Other Fabricated Metal Product Manufacturing (NAICS 3329)	4.48	2.64	5.07	0.01	22.43	34.62	65.38
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)	4.46	2.25	4.45	0.02	18.52	29.70	70.30
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)	0.22	6.44	9.71	0.06	10.02	26.46	73.54

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Investigation and Security Services (NAICS 5616)	8.08	12.99	5.23	0.04	17.39	43.73	56.27
Other General Purpose Machinery Manufacturing (NAICS 3339)	4.42	3.50	5.63	0.00	20.02	33.57	66.43
Other Wood Product Manufacturing (NAICS 3219)	4.14	2.74	8.64	0.01	18.39	33.92	66.08
Electrical Equipment Manufacturing (NAICS 3353)	4.27	2.87	5.23	0.00	20.46	32.83	67.17
Communications Equipment Manufacturing (NAICS 3342)	5.35	3.40	6.00	0.00	18.61	33.36	66.64
Depository Credit Intermediation (NAICS 5221)	4.88	7.10	0.13	0.00	14.31	26.42	73.58
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)	6.46	12.79	5.42	0.12	18.55	43.34	56.66
Advertising, Public Relations, and Related Services (NAICS 5418)	4.36	6.13	7.35	0.26	18.47	36.57	63.43
Insurance Carriers (NAICS 5241)	5.29	6.53	1.16	0.11	15.20	28.29	71.71
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)	9.53	1.49	8.11	2.28	9.03	30.43	69.57
Building Material and Supplies Dealers (NAICS 4441)	9.96	1.35	7.89	2.39	8.12	29.71	70.29
Plastics Product Manufacturing (NAICS 3261)	4.64	3.08	4.87	0.12	19.41	32.13	67.87
Specialized Design Services (NAICS 5414)	9.40	8.45	3.37	0.02	38.42	59.67	40.33
Employment Services (NAICS 5613)	4.64	6.11	7.27	0.23	19.16	37.41	62.59
Waste Collection (NAICS 5621)	4.90	7.57	7.06	0.77	10.98	31.28	68.72
Electric Lighting Equipment Manufacturing (NAICS 3351)	4.75	2.13	5.66	0.01	20.03	32.58	67.42
Chemical and Allied Products Merchant Wholesalers (NAICS 4246)	3.53	3.06	14.87	0.35	16.40	38.21	61.79
Other Electrical Equipment and Component Manufacturing (NAICS 3359)	4.66	2.26	5.25	0.00	18.39	30.56	69.44
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing (NAICS 3334)	3.93	2.60	4.80	0.00	20.84	32.17	67.83
Steel Product Manufacturing from Purchased Steel (NAICS 3312)	3.69	1.86	10.79	0.00	19.94	36.28	63.72
Glass and Glass Product Manufacturing (NAICS 3272)	4.28	2.04	6.40	0.00	20.11	32.82	67.18

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Rubber Product Manufacturing (NAICS 3262)	7.14	2.07	4.82	0.00	21.34	35.37	64.63
Paper and Paper Product Merchant Wholesalers (NAICS 4241)	4.28	3.88	14.42	0.34	19.41	42.32	57.68
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)	4.67	2.62	6.30	0.01	18.75	32.35	67.65
Miscellaneous Nondurable Goods Merchant Wholesalers (NAICS 4249)	9.80	0.93	8.16	2.34	9.07	30.30	69.70
Land Subdivision (NAICS 2372)	5.21	7.09	0.23	0.00	15.30	27.82	72.18
Agriculture, Construction, and Mining Machinery Manufacturing (NAICS 3331)	4.58	2.10	4.34	0.83	19.83	31.68	68.32
Clay Product and Refractory Manufacturing (NAICS 3271)	6.21	10.73	4.18	0.00	22.94	44.05	55.95
Nonmetallic Mineral Mining and Quarrying (NAICS 2123)	1.05	2.31	7.18	0.00	14.66	25.20	74.80
Other Nonmetallic Mineral Product Manufacturing (NAICS 3279)	3.90	2.57	4.36	0.02	21.23	32.09	67.91
Industrial Machinery Manufacturing (NAICS 3332)	4.18	2.60	5.46	0.01	18.78	31.03	68.97
Commercial and Service Industry Machinery Manufacturing (NAICS 3333)	5.17	2.70	4.80	0.00	19.20	31.87	68.13
Spring and Wire Product Manufacturing (NAICS 3326)	4.12	2.24	4.77	0.00	19.25	30.37	69.63
Wired Telecommunications Carriers (NAICS 5171)	5.68	8.90	5.35	0.38	8.57	28.88	71.12
Office Furniture (including Fixtures) Manufacturing (NAICS 3372)	4.59	3.43	5.11	0.42	19.10	32.65	67.35
Scientific Research and Development Services (NAICS 5417)	5.67	2.04	11.51	0.01	21.13	40.36	59.64
Offices of Real Estate Agents and Brokers (NAICS 5312)	4.99	6.99	0.38	0.02	18.13	30.50	69.50
Automotive Equipment Rental and Leasing (NAICS 5321)	5.51	12.89	5.21	0.00	16.79	40.40	59.60
Support Activities for Forestry (NAICS 1153)	0.08	2.42	6.68	0.00	12.74	21.92	78.08
Legal Services (NAICS 5411)	4.61	2.55	7.09	0.03	24.52	38.80	61.20
Electric Power Generation, Transmission and Distribution (NAICS 2211)	0.08	6.10	9.05	0.00	9.78	25.02	74.98
Lessors of Real Estate (NAICS 5311)	5.04	7.03	0.72	0.00	16.64	29.44	70.56
Foundries (NAICS 3315)	4.11	2.05	4.53	0.00	19.00	29.69	70.31

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Lawn and Garden Equipment and Supplies Stores (NAICS 4442)	9.69	1.46	7.88	2.30	9.37	30.71	69.29
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)	2.26	1.18	9.69	0.53	8.27	21.94	78.06
Iron and Steel Mills and Ferroalloy Manufacturing (NAICS 3311)	4.44	2.75	4.66	0.00	19.12	30.97	69.03
Automotive Repair and Maintenance (NAICS 8111)	5.52	13.52	5.27	0.07	16.94	41.32	58.68
Converted Paper Product Manufacturing (NAICS 3222)	6.26	2.36	4.10	0.00	22.05	34.77	65.23
Petroleum and Coal Products Manufacturing (NAICS 3241)	4.01	2.09	4.42	0.00	18.14	28.66	71.34
Support Activities for Mining (NAICS 2131)	1.91	2.29	6.57	0.10	9.40	20.26	79.74
Natural Gas Distribution (NAICS 2212)	3.51	8.16	6.15	0.04	6.97	24.84	75.16
Paint, Coating, and Adhesive Manufacturing (NAICS 3255)	4.40	2.28	5.54	0.00	20.78	32.99	67.01
Support Activities for Crop Production (NAICS 1151)	8.03	10.85	4.99	0.00	17.64	41.52	58.48
Securities and Commodity Contracts Intermediation and Brokerage (NAICS 5231)	5.16	7.11	0.29	0.01	14.90	27.47	72.53
Other Professional, Scientific, and Technical Services (NAICS 5419)	6.80	11.70	5.29	0.10	22.36	46.24	53.76
Support Activities for Road Transportation (NAICS 4884)	4.70	12.18	5.71	0.09	15.85	38.53	61.47
Forging and Stamping (NAICS 3321)	4.35	3.12	4.45	0.49	20.24	32.65	67.35
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)	4.37	2.05	5.40	0.01	24.13	35.96	64.04
Facilities Support Services (NAICS 5612)	5.42	2.82	7.52	1.15	25.17	42.09	57.91
Other Personal Services (NAICS 8129)	5.50	13.48	5.06	0.00	16.68	40.72	59.28
Printing and Related Support Activities (NAICS 3231)	7.22	11.68	5.91	0.00	20.38	45.20	54.80
Motor Vehicle Body and Trailer Manufacturing (NAICS 3362)	3.99	1.87	4.63	0.00	24.64	35.13	64.87
Other Telecommunications (NAICS 5179)	1.26	7.05	8.84	0.07	11.37	28.59	71.41
Electronics and Appliance Stores (NAICS 4431)	10.37	1.08	8.77	2.35	7.32	29.88	70.12
Basic Chemical Manufacturing	3.32	1.83	3.94	1.35	12.98	23.42	76.58

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
(NAICS 3251)							
Furniture Stores (NAICS 4421)	9.71	1.71	7.97	2.31	8.98	30.69	69.31
Alumina and Aluminum Production and Processing (NAICS 3313)	4.24	2.28	4.24	0.00	16.98	27.75	72.25
Aerospace Product and Parts Manufacturing (NAICS 3364)	3.83	4.81	3.83	2.00	17.72	32.19	67.81
Business Schools and Computer and Management Training (NAICS 6114)	6.36	3.20	9.42	0.17	30.00	49.16	50.84
Other Transit and Ground Passenger Transportation (NAICS 4859)	5.22	9.03	5.12	0.43	8.92	28.73	71.27
Sporting Goods, Hobby, and Musical Instrument Stores (NAICS 4511)	9.47	2.31	7.93	2.19	9.17	31.07	68.93
Metalworking Machinery Manufacturing (NAICS 3335)	4.11	2.07	4.63	0.00	19.41	30.23	69.77
Other Crop Farming (NAICS 1119)	0.16	2.37	6.94	0.00	11.63	21.10	78.90
Greenhouse, Nursery, and Floriculture Production (NAICS 1114)	0.26	2.60	6.65	0.02	15.08	24.61	75.39
Other Chemical Product and Preparation Manufacturing (NAICS 3259)	4.74	1.94	6.62	0.01	20.62	33.92	66.08
Drugs and Druggists' Sundries Merchant Wholesalers (NAICS 4242)	2.93	3.50	15.92	0.28	18.16	40.79	59.21
Semiconductor and Other Electronic Component Manufacturing (NAICS 3344)	4.47	3.21	5.04	0.18	20.31	33.22	66.78
Medical and Diagnostic Laboratories (NAICS 6215)	4.16	0.36	6.08	1.02	13.12	24.74	75.26
Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing (NAICS 3252)	4.23	1.95	7.43	0.00	20.48	34.09	65.91
Other Textile Product Mills (NAICS 3149)	5.58	2.78	6.55	0.08	23.17	38.17	61.83
Textile Furnishings Mills (NAICS 3141)	4.21	2.00	4.70	0.00	27.40	38.31	61.69
Rail Transportation (NAICS 4821)	0.11	6.12	9.04	0.00	10.04	25.32	74.68
Cable and Other Subscription Programming (NAICS 5152)	0.59	6.14	9.29	0.00	9.79	25.82	74.18
Travel Arrangement and Reservation Services (NAICS 5615)	1.41	8.97	9.35	0.30	18.71	38.75	61.25
Coating, Engraving, Heat Treating, and Allied Activities	4.52	3.42	5.19	0.14	20.17	33.45	66.55

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
(NAICS 3328)							
Automobile Dealers (NAICS 4411)	0.99	3.39	3.36	0.00	5.28	13.01	86.99
Traveler Accommodation (NAICS 7211)	5.57	12.44	6.00	0.03	17.90	41.94	58.06
Couriers and Express Delivery Services (NAICS 4921)	0.85	6.89	10.19	0.20	11.31	29.44	70.56
Freight Transportation Arrangement (NAICS 4885)	0.72	6.82	11.01	0.12	11.83	30.51	69.49
Software Publishers (NAICS 5112)	4.16	5.95	8.85	0.25	14.18	33.39	66.61
Nondepository Credit Intermediation (NAICS 5222)	4.85	7.05	0.24	0.05	15.73	27.92	72.08
Other Motor Vehicle Dealers (NAICS 4412)	9.81	0.89	7.92	2.39	6.65	27.65	72.35
Textile and Fabric Finishing and Fabric Coating Mills (NAICS 3133)	10.71	0.49	7.88	2.28	8.07	29.42	70.58
Personal and Household Goods Repair and Maintenance (NAICS 8114)	6.13	13.34	4.87	0.00	19.46	43.80	56.20
Apparel, Piece Goods, and Notions Merchant Wholesalers (NAICS 4243)	9.56	1.21	9.47	2.21	10.15	32.60	67.40
Other Furniture Related Product Manufacturing (NAICS 3379)	3.96	3.57	4.43	0.00	24.34	36.30	63.70
Grocery and Related Product Merchant Wholesalers (NAICS 4244)	9.75	1.26	7.69	2.34	7.93	28.97	71.03
Direct Selling Establishments (NAICS 4543)	7.03	3.72	5.09	0.82	25.94	42.61	57.39
Specialty Food Stores (NAICS 4452)	9.54	1.57	9.00	2.22	10.63	32.96	67.04
Vocational Rehabilitation Services (NAICS 6243)	4.79	2.29	6.55	0.15	22.33	36.11	63.89
Support Activities for Water Transportation (NAICS 4883)	0.59	7.17	9.80	0.33	13.07	30.98	69.02
Satellite Telecommunications (NAICS 5174)	0.00	6.33	11.91	0.00	11.22	29.47	70.53
Electronic Shopping and Mail-Order Houses (NAICS 4541)	9.75	1.91	8.50	2.15	13.32	35.64	64.36
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing (NAICS 3327)	3.91	2.03	5.75	0.04	20.50	32.23	67.77
Motor Vehicle Manufacturing (NAICS 3361)	2.00	0.81	2.28	0.83	11.85	17.77	82.23
Support Activities for Air Transportation (NAICS 4881)	6.59	5.10	5.74	0.85	12.65	30.92	69.08
Beverage Manufacturing	8.16	1.99	3.99	0.00	18.04	32.18	67.82

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
(NAICS 3121)							
Drycleaning and Laundry Services (NAICS 8123)	6.51	11.88	7.65	0.00	19.53	45.57	54.43
Automotive Parts, Accessories, and Tire Stores (NAICS 4413)	10.28	1.65	7.88	2.42	6.43	28.66	71.34
Special Food Services (NAICS 7223)	7.29	7.04	5.84	0.79	20.10	41.06	58.94
Insurance and Employee Benefit Funds (NAICS 5251)	4.76	7.14	0.00	0.00	14.29	26.19	73.81
Audio and Video Equipment Manufacturing (NAICS 3343)	4.74	2.78	7.03	0.03	17.71	32.28	67.72
Engine, Turbine, and Power Transmission Equipment Manufacturing (NAICS 3336)	5.24	1.82	6.53	0.00	29.66	43.26	56.74
Bakeries and Tortilla Manufacturing (NAICS 3118)	10.00	2.88	7.97	2.32	9.60	32.77	67.23
Water, Sewage and Other Systems (NAICS 2213)	0.12	6.06	9.00	0.01	9.81	25.00	75.00
Sheep and Goat Farming (NAICS 1124)	0.00	2.52	7.85	0.00	20.06	30.43	69.57
Personal Care Services (NAICS 8121)	5.73	12.63	4.54	0.07	19.60	42.57	57.43
Activities Related to Credit Intermediation (NAICS 5223)	4.78	7.30	0.26	0.00	15.79	28.12	71.88
<i>CONSTRUCTION</i>	<i>4.00</i>	<i>6.94</i>	<i>3.18</i>	<i>0.21</i>	<i>8.41</i>	<i>22.74</i>	<i>77.26</i>

Source: See Table 4.1.

M/WBE Availability in New York's Marketplace**Table 4.14. Detailed M/WBE Availability—CRS, 2010**

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Architectural, Engineering, and Related Services (NAICS 5413)	3.10	4.51	3.84	1.08	11.76	24.28	75.72
Nonresidential Building Construction (NAICS 2362)	3.45	4.39	6.01	0.16	9.20	23.20	76.80
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	1.33	1.21	13.10	0.43	9.29	25.37	74.63
Business Support Services (NAICS 5614)	6.11	10.97	5.36	0.06	20.92	43.42	56.58
Highway, Street, and Bridge Construction (NAICS 2373)	1.48	6.15	1.84	0.32	11.12	20.90	79.10
Computer Systems Design and Related Services (NAICS 5415)	5.38	5.97	10.45	0.32	16.10	38.21	61.79
Architectural and Structural Metals Manufacturing (NAICS 3323)	4.73	3.44	4.89	0.23	21.61	34.90	65.10
Building Equipment Contractors (NAICS 2382)	4.73	7.88	2.40	0.11	7.23	22.35	77.65
Commercial and Industrial Machinery and Equipment Rental and Leasing (NAICS 5324)	5.57	12.66	5.11	0.00	18.44	41.78	58.22
Other Amusement and Recreation Industries (NAICS 7139)	0.68	6.82	8.66	0.04	11.71	27.91	72.09
Other Specialty Trade Contractors (NAICS 2389)	4.07	7.37	2.53	0.07	7.77	21.82	78.18
Cement and Concrete Product Manufacturing (NAICS 3273)	1.56	0.78	1.95	0.78	7.81	12.89	87.11
Management, Scientific, and Technical Consulting Services (NAICS 5416)	3.43	4.80	2.73	1.04	17.53	29.52	70.48
Remediation and Other Waste Management Services (NAICS 5629)	4.71	7.53	5.56	0.73	13.40	31.93	68.07
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	1.21	1.77	10.25	0.26	9.70	23.20	76.80
Advertising, Public Relations, and Related Services (NAICS 5418)	5.24	3.40	7.84	0.25	31.28	48.00	52.00
Services to Buildings and Dwellings (NAICS 5617)	6.31	12.79	5.20	0.19	16.70	41.19	58.81
Investigation and Security Services (NAICS 5616)	7.83	12.87	5.24	0.01	17.77	43.72	56.28
Scientific Research and Development Services (NAICS	5.63	2.05	11.39	0.02	21.23	40.33	59.67

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
5417)							
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Main	5.85	12.80	5.24	0.00	18.04	41.93	58.07
Offices of Real Estate Agents and Brokers (NAICS 5312)	4.99	6.99	0.38	0.02	18.13	30.50	69.50
Other Miscellaneous Manufacturing (NAICS 3399)	4.37	3.08	5.79	0.07	21.83	35.15	64.85
Railroad Rolling Stock Manufacturing (NAICS 3365)	1.74	0.87	2.11	0.73	11.76	17.21	82.79
Printing and Related Support Activities (NAICS 3231)	7.19	11.60	5.90	0.00	20.35	45.04	54.96
Support Activities for Rail Transportation (NAICS 4882)	1.71	6.70	8.76	0.42	12.33	29.93	70.07
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	4.03	7.94	2.37	0.06	7.09	21.48	78.52
Specialized Design Services (NAICS 5414)	8.82	9.28	3.91	0.06	34.69	56.76	43.24
Offices of Physicians (NAICS 6211)	4.61	2.55	7.53	0.02	24.55	39.27	60.73
Other Heavy and Civil Engineering Construction (NAICS 2379)	2.44	8.56	1.63	0.30	9.13	22.05	77.95
Activities Related to Real Estate (NAICS 5313)	5.56	7.03	0.05	0.00	15.88	28.52	71.48
Insurance Carriers (NAICS 5241)	5.27	6.56	1.12	0.11	15.26	28.32	71.68
Utility System Construction (NAICS 2371)	0.79	3.48	6.43	0.01	11.53	22.24	77.76
Automotive Repair and Maintenance (NAICS 8111)	5.70	13.78	5.12	0.00	16.65	41.25	58.75
Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	1.02	1.84	10.35	0.19	9.86	23.25	76.75
Coating, Engraving, Heat Treating, and Allied Activities (NAICS 3328)	4.07	3.37	4.23	0.00	17.95	29.62	70.38
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	9.67	1.71	8.59	2.49	8.53	30.98	69.02
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)	4.43	3.91	5.27	0.03	18.79	32.42	67.58
Offices of Other Health Practitioners (NAICS 6213)	4.76	2.96	7.69	0.01	28.93	44.35	55.65

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
General Freight Trucking (NAICS 4841)	5.65	9.49	4.16	0.21	7.46	26.98	73.02
Communications Equipment Manufacturing (NAICS 3342)	5.01	3.05	6.12	0.00	18.63	32.81	67.19
Plastics Product Manufacturing (NAICS 3261)	4.62	3.17	4.92	0.14	19.72	32.58	67.42
Other General Purpose Machinery Manufacturing (NAICS 3339)	4.34	2.68	5.59	0.01	20.54	33.16	66.84
Soap, Cleaning Compound, and Toilet Preparation Manufacturing (NAICS 3256)	4.25	2.43	6.44	0.57	23.31	37.01	62.99
Data Processing, Hosting, and Related Services (NAICS 5182)	4.79	6.02	8.16	0.19	18.76	37.92	62.08
Electric Power Generation, Transmission and Distribution (NAICS 2211)	0.00	6.06	9.09	0.00	9.09	24.24	75.76
Other Motor Vehicle Dealers (NAICS 4412)	9.15	2.53	7.19	1.99	9.45	30.30	69.70
Facilities Support Services (NAICS 5612)	5.42	2.82	7.52	1.15	25.17	42.09	57.91
Legal Services (NAICS 5411)	4.61	2.55	7.09	0.03	24.52	38.80	61.20
Sound Recording Industries (NAICS 5122)	5.78	10.58	4.71	0.04	21.80	42.92	57.08
Special Food Services (NAICS 7223)	11.07	0.79	8.72	2.24	10.03	32.85	67.15
Other Personal Services (NAICS 8129)	5.50	13.48	5.06	0.00	16.68	40.72	59.28
Aerospace Product and Parts Manufacturing (NAICS 3364)	4.74	5.95	6.68	0.00	22.99	40.36	59.64
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	8.76	2.30	8.91	1.98	16.57	38.51	61.49
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)	7.53	12.70	5.89	0.00	17.57	43.68	56.32
Grocery and Related Product Merchant Wholesalers (NAICS 4244)	9.85	2.93	8.90	2.27	8.38	32.33	67.67
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)	10.54	1.03	8.25	2.26	8.59	30.66	69.34
Engine, Turbine, and Power Transmission Equipment Manufacturing (NAICS 3336)	3.89	1.94	4.53	0.00	22.30	32.66	67.34
Building Finishing Contractors (NAICS 2383)	1.88	4.90	5.12	0.03	9.22	21.15	78.85
Chemical and Allied Products Merchant Wholesalers (NAICS 4246)	2.92	3.20	15.39	0.16	17.24	38.90	61.10

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Cut and Sew Apparel Manufacturing (NAICS 3152)	4.56	2.61	7.68	0.00	22.97	37.81	62.19
Beverage Manufacturing (NAICS 3121)	4.28	3.66	4.80	0.55	18.72	32.01	67.99
Support Activities for Crop Production (NAICS 1151)	8.03	10.85	4.99	0.00	17.64	41.52	58.48
Other Telecommunications (NAICS 5179)	1.26	7.05	8.84	0.07	11.37	28.59	71.41
Drycleaning and Laundry Services (NAICS 8123)	7.00	12.26	5.27	0.00	19.35	43.89	56.11
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)	0.30	0.62	10.95	0.08	8.03	19.99	80.01
Other Chemical Product and Preparation Manufacturing (NAICS 3259)	4.87	1.96	6.98	0.00	20.13	33.94	66.06
Automotive Equipment Rental and Leasing (NAICS 5321)	5.65	13.08	5.25	0.00	16.89	40.88	59.12
Medical and Diagnostic Laboratories (NAICS 6215)	4.16	0.36	6.08	1.02	13.12	24.74	75.26
Other Professional, Scientific, and Technical Services (NAICS 5419)	6.80	11.70	5.29	0.10	22.36	46.24	53.76
Waste Treatment and Disposal (NAICS 5622)	0.56	7.01	9.20	0.47	11.81	29.04	70.96
Other Transportation Equipment Manufacturing (NAICS 3369)	3.17	2.54	3.36	0.38	17.81	27.26	72.74
Employment Services (NAICS 5613)	4.49	5.88	7.37	0.23	18.92	36.90	63.10
Support Activities for Forestry (NAICS 1153)	0.08	2.42	6.68	0.00	12.74	21.92	78.08
Building Material and Supplies Dealers (NAICS 4441)	10.00	1.10	7.86	2.42	8.06	29.44	70.56
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)	10.07	0.88	8.52	2.34	8.15	29.96	70.04
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)	5.07	3.01	5.45	0.09	20.63	34.25	65.75
<i>CRS</i>	<i>3.19</i>	<i>4.66</i>	<i>4.46</i>	<i>0.90</i>	<i>11.32</i>	<i>24.53</i>	<i>75.47</i>

Source: See Table 4.1.

M/WBE Availability in New York's Marketplace**Table 4.15. Detailed M/WBE Availability—Services, 2010**

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Drugs and Druggists' Sundries Merchant Wholesalers (NAICS 4242)	2.93	3.50	15.92	0.28	18.16	40.79	59.21
Insurance Carriers (NAICS 5241)	5.97	5.70	2.55	0.27	12.56	27.05	72.95
Nursing Care Facilities (NAICS 6231)	4.44	0.76	5.86	0.77	14.71	26.55	73.45
Advertising, Public Relations, and Related Services (NAICS 5418)	4.45	6.07	7.26	0.35	18.36	36.49	63.51
Computer Systems Design and Related Services (NAICS 5415)	4.27	6.31	8.54	0.45	13.85	33.43	66.57
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	0.90	1.22	13.08	0.32	9.47	24.99	75.01
Management, Scientific, and Technical Consulting Services (NAICS 5416)	3.41	4.40	2.32	1.05	17.76	28.95	71.05
Data Processing, Hosting, and Related Services (NAICS 5182)	4.79	6.02	8.16	0.19	18.76	37.92	62.08
Employment Services (NAICS 5613)	5.74	7.93	6.48	0.19	21.02	41.36	58.64
Other Transit and Ground Passenger Transportation (NAICS 4859)	5.22	9.03	5.12	0.43	8.92	28.73	71.27
Gambling Industries (NAICS 7132)	3.64	5.88	7.19	0.00	13.13	29.84	70.16
Depository Credit Intermediation (NAICS 5221)	4.88	7.10	0.13	0.00	14.31	26.42	73.58
Architectural, Engineering, and Related Services (NAICS 5413)	3.46	4.09	4.82	0.87	14.51	27.74	72.26
Nonresidential Building Construction (NAICS 2362)	3.45	4.39	6.01	0.16	9.20	23.20	76.80
Business Support Services (NAICS 5614)	6.82	12.04	4.85	0.01	21.07	44.80	55.20
Building Equipment Contractors (NAICS 2382)	4.82	7.93	2.66	0.10	7.87	23.38	76.62
Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	2.80	1.72	10.06	0.63	9.73	24.94	75.06
Health and Personal Care Stores (NAICS 4461)	10.13	0.74	8.05	2.39	8.19	29.50	70.50
Special Food Services (NAICS 7223)	11.07	0.79	8.72	2.24	10.03	32.85	67.15
Vocational Rehabilitation Services (NAICS 6243)	4.79	2.29	6.55	0.15	22.33	36.11	63.89
General Freight Trucking (NAICS 4841)	5.65	9.49	4.16	0.21	7.46	26.98	73.02

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Other Financial Investment Activities (NAICS 5239)	6.05	7.10	0.60	0.01	16.27	30.02	69.98
Services to Buildings and Dwellings (NAICS 5617)	8.02	12.98	4.87	0.09	19.37	45.34	54.66
Legal Services (NAICS 5411)	4.60	2.55	7.09	0.03	24.52	38.80	61.20
Travel Arrangement and Reservation Services (NAICS 5615)	1.12	7.09	9.43	0.09	14.71	32.45	67.55
Investigation and Security Services (NAICS 5616)	8.98	13.09	5.12	0.09	16.93	44.21	55.79
Other Ambulatory Health Care Services (NAICS 6219)	4.59	2.36	6.83	0.01	23.57	37.35	62.65
Railroad Rolling Stock Manufacturing (NAICS 3365)	1.74	0.87	2.11	0.73	11.76	17.21	82.79
Offices of Physicians (NAICS 6211)	4.62	2.58	7.51	0.02	24.85	39.59	60.41
Software Publishers (NAICS 5112)	4.16	5.95	8.85	0.25	14.18	33.39	66.61
Other Heavy and Civil Engineering Construction (NAICS 2379)	2.44	8.56	1.63	0.30	9.13	22.05	77.95
Waste Treatment and Disposal (NAICS 5622)	0.68	6.98	9.04	0.14	11.20	28.03	71.97
Grocery and Related Product Merchant Wholesalers (NAICS 4244)	9.82	2.20	9.10	2.37	7.84	31.33	68.67
Interurban and Rural Bus Transportation (NAICS 4852)	0.91	6.58	8.75	0.14	11.41	27.80	72.20
Drycleaning and Laundry Services (NAICS 8123)	5.35	12.64	4.87	0.97	20.27	44.10	55.90
Charter Bus Industry (NAICS 4855)	0.78	7.68	9.14	0.27	14.02	31.89	68.11
Medical and Diagnostic Laboratories (NAICS 6215)	4.16	0.36	6.08	1.02	13.12	24.74	75.26
Cement and Concrete Product Manufacturing (NAICS 3273)	1.93	1.02	2.28	0.67	9.38	15.29	84.71
Architectural and Structural Metals Manufacturing (NAICS 3323)	3.30	2.10	3.54	0.65	12.47	22.06	77.94
Other General Purpose Machinery Manufacturing (NAICS 3339)	4.15	3.61	5.25	0.00	20.69	33.71	66.29
Computer and Peripheral Equipment Manufacturing (NAICS 3341)	5.03	2.82	7.86	0.01	19.04	34.76	65.24
Commercial and Industrial Machinery and Equipment Rental and Leasing (NAICS 5324)	4.56	8.60	6.39	0.11	15.67	35.33	64.67
Other Telecommunications	1.26	7.05	8.84	0.07	11.37	28.59	71.41

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
(NAICS 5179)							
Utility System Construction (NAICS 2371)	0.79	3.48	6.43	0.01	11.53	22.24	77.76
Other Wood Product Manufacturing (NAICS 3219)	4.13	2.73	8.76	0.00	18.32	33.95	66.05
Engine, Turbine, and Power Transmission Equipment Manufacturing (NAICS 3336)	4.68	2.96	7.29	0.00	16.21	31.14	68.86
Outpatient Care Centers (NAICS 6214)	4.43	2.17	6.69	0.00	21.76	35.05	64.95
Other Personal Services (NAICS 8129)	5.50	13.48	5.06	0.00	16.68	40.72	59.28
Building Finishing Contractors (NAICS 2383)	0.90	3.44	6.25	0.01	10.65	21.26	78.74
Freight Transportation Arrangement (NAICS 4885)	0.72	6.82	11.01	0.12	11.83	30.51	69.49
Couriers and Express Delivery Services (NAICS 4921)	0.85	6.89	10.19	0.20	11.31	29.44	70.56
Offices of Other Health Practitioners (NAICS 6213)	4.76	2.95	7.69	0.01	28.90	44.31	55.69
Other Specialty Trade Contractors (NAICS 2389)	4.20	7.59	2.40	0.09	7.33	21.62	78.38
Other Professional, Scientific, and Technical Services (NAICS 5419)	4.27	3.65	6.73	0.28	23.87	38.79	61.21
Remediation and Other Waste Management Services (NAICS 5629)	4.71	7.53	5.57	0.73	13.40	31.93	68.07
Wired Telecommunications Carriers (NAICS 5171)	5.68	8.90	5.35	0.38	8.57	28.88	71.12
Printing and Related Support Activities (NAICS 3231)	6.80	10.16	5.86	0.01	20.74	43.58	56.42
Nondepository Credit Intermediation (NAICS 5222)	4.84	7.06	0.28	0.01	15.03	27.22	72.78
Psychiatric and Substance Abuse Hospitals (NAICS 6222)	4.63	1.21	5.72	0.89	18.20	30.64	69.36
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)	4.09	4.77	4.83	0.01	18.92	32.61	67.39
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)	0.30	0.62	10.95	0.08	8.03	19.99	80.01
Offices of Real Estate Agents and Brokers (NAICS 5312)	4.99	6.99	0.38	0.02	18.13	30.50	69.50
Warehousing and Storage (NAICS 4931)	0.35	6.29	9.07	0.03	11.83	27.58	72.42
Scientific Research and Development Services (NAICS 5417)	4.60	2.64	7.79	0.20	24.40	39.63	60.37

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Highway, Street, and Bridge Construction (NAICS 2373)	1.48	6.15	1.84	0.32	11.12	20.90	79.10
Agencies, Brokerages, and Other Insurance Related Activities (NAICS 5242)	6.92	5.35	5.15	0.04	10.89	28.35	71.65
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	4.17	8.46	2.65	0.41	10.07	25.76	74.24
Apparel, Piece Goods, and Notions Merchant Wholesalers (NAICS 4243)	9.56	1.21	9.47	2.21	10.15	32.60	67.40
Specialized Design Services (NAICS 5414)	9.40	8.45	3.38	0.02	38.41	59.66	40.34
Electronics and Appliance Stores (NAICS 4431)	10.57	1.06	9.12	2.34	7.39	30.48	69.52
Bakeries and Tortilla Manufacturing (NAICS 3118)	4.37	2.64	4.94	0.00	24.73	36.68	63.32
Other Information Services (NAICS 5191)	4.23	6.30	5.11	0.00	14.85	30.50	69.50
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)	7.53	12.70	5.89	0.00	17.57	43.68	56.32
Paper and Paper Product Merchant Wholesalers (NAICS 4241)	9.74	1.56	9.30	2.17	10.11	32.89	67.11
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)	10.11	1.71	8.23	2.26	7.77	30.09	69.91
Textile and Fabric Finishing and Fabric Coating Mills (NAICS 3133)	10.71	0.49	7.88	2.28	8.07	29.42	70.58
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	9.75	1.64	8.54	2.47	8.40	30.81	69.19
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	4.27	1.51	9.64	0.96	8.87	25.24	74.76
Logging (NAICS 1133)	4.11	2.36	4.52	0.00	18.90	29.89	70.11
Electronic Shopping and Mail-Order Houses (NAICS 4541)	9.75	1.91	8.50	2.15	13.32	35.64	64.36
Support Activities for Air Transportation (NAICS 4881)	6.59	5.10	5.74	0.85	12.65	30.92	69.08
Beverage Manufacturing (NAICS 3121)	5.07	3.32	4.63	0.44	18.58	32.04	67.96
Local Messengers and Local Delivery (NAICS 4922)	0.25	9.36	8.48	0.44	10.54	29.07	70.93
Audio and Video Equipment Manufacturing (NAICS 3343)	4.74	2.78	7.03	0.03	17.71	32.28	67.72
Communications Equipment Manufacturing (NAICS 3342)	5.28	3.34	6.02	0.00	18.61	33.26	66.74

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Main	5.85	12.80	5.24	0.00	18.04	41.93	58.07
Traveler Accommodation (NAICS 7211)	5.57	12.44	6.00	0.03	17.90	41.94	58.06
Cable and Other Subscription Programming (NAICS 5152)	0.59	6.14	9.29	0.00	9.79	25.82	74.18
Other Miscellaneous Manufacturing (NAICS 3399)	4.37	3.08	5.80	0.07	21.86	35.17	64.83
Sound Recording Industries (NAICS 5122)	5.78	10.58	4.71	0.04	21.80	42.92	57.08
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)	4.45	2.15	5.40	0.02	23.78	35.81	64.19
Motion Picture and Video Industries (NAICS 5121)	6.66	12.43	5.16	0.02	19.38	43.65	56.35
Personal Care Services (NAICS 8121)	5.73	12.63	4.54	0.07	19.60	42.57	57.43
Personal and Household Goods Repair and Maintenance (NAICS 8114)	5.76	13.21	7.54	0.00	18.64	45.16	54.84
Waste Collection (NAICS 5621)	4.90	7.57	7.06	0.77	10.98	31.28	68.72
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	8.90	2.21	9.01	2.01	15.93	38.07	61.93
Fruit and Vegetable Preserving and Specialty Food Manufacturing (NAICS 3114)	4.96	2.76	4.37	0.00	22.38	34.48	65.52
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)	10.08	1.34	8.87	2.26	9.75	32.30	67.70
Building Material and Supplies Dealers (NAICS 4441)	10.00	1.10	7.86	2.42	8.06	29.44	70.56
Management of Companies and Enterprises (NAICS 5511)	4.84	7.09	0.20	0.00	15.00	27.14	72.86
Miscellaneous Nondurable Goods Merchant Wholesalers (NAICS 4249)	9.91	1.31	8.10	2.28	9.85	31.45	68.55
Dairy Product Manufacturing (NAICS 3115)	3.58	2.58	4.70	0.00	25.68	36.54	63.46
Converted Paper Product Manufacturing (NAICS 3222)	3.84	2.04	4.53	0.00	22.73	33.14	66.86
Animal Food Manufacturing (NAICS 3111)	8.97	0.00	7.66	2.24	14.21	33.08	66.92
Home Furnishings Stores (NAICS 4422)	10.29	1.49	7.90	2.36	8.01	30.05	69.95
Home Health Care Services (NAICS 6216)	5.31	3.26	7.53	0.37	28.63	45.09	54.91
Animal Slaughtering and Processing (NAICS 3116)	5.21	1.34	5.49	0.63	21.59	34.27	65.73

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)	10.05	0.90	8.51	2.34	8.19	29.99	70.01
Business Schools and Computer and Management Training (NAICS 6114)	6.36	3.20	9.42	0.17	30.00	49.16	50.84
Specialty Food Stores (NAICS 4452)	9.54	1.57	9.00	2.22	10.63	32.96	67.04
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)	9.80	1.49	8.16	2.38	7.38	29.20	70.80
Activities Related to Credit Intermediation (NAICS 5223)	4.78	7.30	0.26	0.00	15.79	28.12	71.88
Electrical Equipment Manufacturing (NAICS 3353)	3.91	2.30	5.64	0.00	20.53	32.39	67.61
Other Textile Product Mills (NAICS 3149)	5.41	2.98	6.36	0.07	22.82	37.65	62.35
Independent Artists, Writers, and Performers (NAICS 7115)	7.08	12.02	4.91	0.40	20.47	44.88	55.12
Medical Equipment and Supplies Manufacturing (NAICS 3391)	4.50	2.73	5.61	0.01	19.99	32.82	67.18
Radio and Television Broadcasting (NAICS 5151)	0.89	6.30	8.84	0.00	11.09	27.11	72.89
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)	0.22	6.44	9.71	0.06	10.02	26.46	73.54
Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures (NAICS 7114)	7.08	11.60	4.75	0.01	22.67	46.10	53.90
Boiler, Tank, and Shipping Container Manufacturing (NAICS 3324)	9.63	2.62	4.07	0.00	16.01	32.33	67.67
Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers (NAICS 4248)	9.61	3.12	9.29	2.29	8.17	32.48	67.52
Rail Transportation (NAICS 4821)	0.11	6.12	9.04	0.00	10.04	25.32	74.68
Support Activities for Crop Production (NAICS 1151)	8.03	10.85	4.99	0.00	17.64	41.52	58.48
Lawn and Garden Equipment and Supplies Stores (NAICS 4442)	9.69	1.46	7.88	2.30	9.37	30.71	69.29
Automotive Parts, Accessories, and Tire Stores (NAICS 4413)	10.28	1.65	7.88	2.42	6.43	28.66	71.34
Other Animal Production (NAICS 1129)	0.05	2.59	6.24	0.00	24.15	33.04	66.96
Coating, Engraving, Heat Treating, and Allied Activities (NAICS 3328)	4.40	3.41	5.33	0.02	20.97	34.13	65.87

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Pharmaceutical and Medicine Manufacturing (NAICS 3254)	4.35	2.13	6.26	0.12	18.37	31.23	68.77
Soap, Cleaning Compound, and Toilet Preparation Manufacturing (NAICS 3256)	4.25	2.43	6.44	0.57	23.31	37.01	62.99
Support Activities for Forestry (NAICS 1153)	0.08	2.42	6.68	0.00	12.74	21.92	78.08
Direct Selling Establishments (NAICS 4543)	9.94	0.43	7.68	2.46	6.62	27.14	72.86
Electric Power Generation, Transmission and Distribution (NAICS 2211)	0.11	6.12	9.04	0.00	10.01	25.28	74.72
General Medical and Surgical Hospitals (NAICS 6221)	4.40	2.21	6.63	0.02	22.32	35.57	64.43
Industrial Machinery Manufacturing (NAICS 3332)	5.90	3.06	5.74	0.01	20.67	35.38	64.62
Forging and Stamping (NAICS 3321)	4.37	3.36	4.50	0.61	21.02	33.86	66.14
Rubber Product Manufacturing (NAICS 3262)	4.46	2.84	6.97	0.01	22.08	36.36	63.64
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing (NAICS 3334)	4.20	2.37	5.62	0.02	18.82	31.03	68.97
Footwear Manufacturing (NAICS 3162)	3.87	1.93	4.54	0.00	22.54	32.89	67.11
Full-Service Restaurants (NAICS 7221)	5.49	5.87	6.63	0.58	15.30	33.89	66.11
Support Activities for Road Transportation (NAICS 4884)	5.47	13.25	5.14	0.00	16.64	40.50	59.50
Petroleum and Petroleum Products Merchant Wholesalers (NAICS 4247)	3.18	2.39	13.73	0.31	17.29	36.90	63.10
Plastics Product Manufacturing (NAICS 3261)	4.75	1.60	13.49	0.00	22.49	42.33	57.67
Sugar and Confectionery Product Manufacturing (NAICS 3113)	5.26	1.77	4.83	0.43	15.04	27.32	72.68
Cut and Sew Apparel Manufacturing (NAICS 3152)	5.35	2.16	8.05	0.00	31.98	47.54	52.46
Shoe Stores (NAICS 4482)	6.65	8.98	6.81	0.97	13.43	36.85	63.15
Other Transportation Equipment Manufacturing (NAICS 3369)	4.02	2.22	4.32	0.00	19.13	29.68	70.32
Chemical and Allied Products Wholesalers (NAICS 4246)	9.65	1.64	9.68	2.29	8.07	31.33	68.67
Commercial and Service Industry Machinery Manufacturing (NAICS 3333)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
<i>SERVICES</i>	<i>3.50</i>	<i>4.19</i>	<i>11.56</i>	<i>0.35</i>	<i>17.44</i>	<i>37.04</i>	<i>62.96</i>

Source: See Table 4.1.

Table 4.16. Detailed M/WBE Availability—Commodities, 2010

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	1.75	1.51	11.36	0.43	10.05	25.09	74.91
Petroleum and Petroleum Products Merchant Wholesalers (NAICS 4247)	3.18	2.44	13.77	0.29	17.10	36.78	63.22
Railroad Rolling Stock Manufacturing (NAICS 3365)	1.74	0.87	2.11	0.73	11.76	17.21	82.79
Wired Telecommunications Carriers (NAICS 5171)	5.68	8.90	5.35	0.38	8.57	28.88	71.12
Motor Vehicle Manufacturing (NAICS 3361)	2.00	0.81	2.28	0.83	11.85	17.77	82.23
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)	2.99	1.15	9.51	0.71	8.16	22.53	77.47
Beverage Manufacturing (NAICS 3121)	8.15	1.99	3.99	0.00	18.04	32.18	67.82
Miscellaneous Nondurable Goods Merchant Wholesalers (NAICS 4249)	3.36	4.02	14.62	0.19	18.52	40.71	59.29
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	4.12	1.63	9.76	0.93	9.59	26.03	73.97
Automobile Dealers (NAICS 4411)	0.99	3.39	3.36	0.00	5.28	13.01	86.99
Natural Gas Distribution (NAICS 2212)	3.51	8.16	6.15	0.04	6.97	24.84	75.16
Chemical and Allied Products Merchant Wholesalers (NAICS 4246)	2.94	3.19	15.38	0.16	17.21	38.88	61.12
Building Equipment Contractors (NAICS 2382)	4.77	7.89	2.33	0.12	7.14	22.24	77.76
Software Publishers (NAICS 5112)	4.16	5.95	8.85	0.25	14.18	33.39	66.61
Commercial and Industrial Machinery and Equipment Rental and Leasing (NAICS 5324)	5.49	12.37	5.21	0.01	18.23	41.31	58.69
Communications Equipment Manufacturing (NAICS 3342)	5.15	3.26	5.79	0.11	18.81	33.13	66.87
Computer Systems Design and Related Services (NAICS 5415)	4.95	5.85	10.35	0.26	15.62	37.02	62.98
Paper and Paper Product Merchant Wholesalers (NAICS 4241)	5.05	3.58	13.74	0.59	18.11	41.07	58.93
Basic Chemical Manufacturing (NAICS 3251)	2.89	1.45	3.27	1.93	11.03	20.57	79.43

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	2.40	1.75	10.13	0.53	9.73	24.54	75.46
Architectural and Structural Metals Manufacturing (NAICS 3323)	3.38	2.15	3.57	0.63	12.77	22.50	77.50
Printing and Related Support Activities (NAICS 3231)	4.55	2.56	5.06	0.04	21.16	33.36	66.64
Pharmaceutical and Medicine Manufacturing (NAICS 3254)	4.42	2.11	6.85	0.12	18.20	31.70	68.30
Nonresidential Building Construction (NAICS 2362)	3.45	4.39	6.01	0.16	9.20	23.20	76.80
Management, Scientific, and Technical Consulting Services (NAICS 5416)	3.70	4.54	2.49	1.06	18.35	30.13	69.87
Drugs and Druggists' Sundries Merchant Wholesalers (NAICS 4242)	2.93	3.50	15.92	0.28	18.16	40.79	59.21
Highway, Street, and Bridge Construction (NAICS 2373)	1.48	6.15	1.84	0.32	11.12	20.90	79.10
Architectural, Engineering, and Related Services (NAICS 5413)	3.27	4.22	4.35	0.98	13.00	25.83	74.17
Other Specialty Trade Contractors (NAICS 2389)	4.18	7.57	2.41	0.09	7.39	21.64	78.36
Scientific Research and Development Services (NAICS 5417)	5.62	2.06	11.34	0.02	21.28	40.32	59.68
Computer and Peripheral Equipment Manufacturing (NAICS 3341)	4.65	2.23	6.72	0.00	19.16	32.76	67.24
Medical Equipment and Supplies Manufacturing (NAICS 3391)	4.24	2.75	5.62	0.01	20.39	33.01	66.99
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)	0.30	0.62	10.95	0.08	8.03	19.99	80.01
Agriculture, Construction, and Mining Machinery Manufacturing (NAICS 3331)	4.56	2.10	4.35	0.80	19.88	31.69	68.31
Petroleum and Coal Products Manufacturing (NAICS 3241)	4.01	2.10	4.42	0.00	18.26	28.79	71.21
Apparel, Piece Goods, and Notions Merchant Wholesalers (NAICS 4243)	9.56	1.21	9.47	2.21	10.12	32.56	67.44
Other Telecommunications (NAICS 5179)	1.26	7.05	8.84	0.07	11.37	28.59	71.41
Automotive Equipment Rental and Leasing (NAICS 5321)	5.52	12.91	5.22	0.00	16.80	40.45	59.55
Grocery and Related Product Merchant Wholesalers (NAICS 4244)	9.86	2.12	8.76	2.37	7.77	30.88	69.12

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Medical and Diagnostic Laboratories (NAICS 6215)	4.16	0.36	6.08	1.02	13.12	24.74	75.26
Other Heavy and Civil Engineering Construction (NAICS 2379)	2.44	8.56	1.63	0.30	9.13	22.05	77.95
Converted Paper Product Manufacturing (NAICS 3222)	3.71	2.96	5.04	0.01	22.06	33.78	66.22
Animal Slaughtering and Processing (NAICS 3116)	5.22	1.33	5.51	0.64	21.64	34.35	65.65
Electronics and Appliance Stores (NAICS 4431)	10.54	1.04	9.06	2.35	7.35	30.34	69.66
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	10.20	1.39	8.39	2.41	7.95	30.34	69.66
Investigation and Security Services (NAICS 5616)	8.29	12.96	5.19	0.04	17.43	43.91	56.09
Iron and Steel Mills and Ferroalloy Manufacturing (NAICS 3311)	4.44	2.75	4.66	0.00	19.12	30.97	69.03
Home Furnishings Stores (NAICS 4422)	10.29	1.49	7.90	2.36	8.01	30.05	69.95
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)	4.45	2.09	5.22	0.03	22.86	34.64	65.36
Depository Credit Intermediation (NAICS 5221)	4.88	7.10	0.13	0.00	14.31	26.42	73.58
Electrical Equipment Manufacturing (NAICS 3353)	4.10	2.48	5.22	0.00	21.75	33.55	66.45
Gambling Industries (NAICS 7132)	3.64	5.88	7.19	0.00	13.13	29.84	70.16
Building Finishing Contractors (NAICS 2383)	0.44	2.74	6.95	0.05	10.97	21.15	78.85
Waste Treatment and Disposal (NAICS 5622)	0.81	6.88	8.99	0.11	11.58	28.37	71.63
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Main	5.85	12.80	5.24	0.00	18.04	41.93	58.07
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	9.96	1.52	9.80	2.22	11.32	34.83	65.17
Sawmills and Wood Preservation (NAICS 3211)	4.40	1.98	5.81	0.05	18.42	30.66	69.34
Support Activities for Rail Transportation (NAICS 4882)	1.71	6.70	8.76	0.42	12.33	29.93	70.07
Other Electrical Equipment and Component Manufacturing (NAICS 3359)	4.51	2.08	6.49	0.00	20.26	33.34	66.66
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)	4.43	2.43	7.04	0.00	18.88	32.78	67.22

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Employment Services (NAICS 5613)	4.54	5.96	7.34	0.23	19.01	37.08	62.92
Cement and Concrete Product Manufacturing (NAICS 3273)	3.59	2.12	3.77	0.16	16.44	26.07	73.93
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)	0.22	6.44	9.71	0.06	10.02	26.46	73.54
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)	9.42	2.77	8.15	2.14	7.79	30.27	69.73
Other Chemical Product and Preparation Manufacturing (NAICS 3259)	4.41	1.90	5.75	0.03	21.81	33.90	66.10
Agencies, Brokerages, and Other Insurance Related Activities (NAICS 5242)	6.92	5.35	5.15	0.04	10.89	28.35	71.65
Other Miscellaneous Manufacturing (NAICS 3399)	4.22	2.60	5.09	0.08	22.98	34.98	65.02
Nondepository Credit Intermediation (NAICS 5222)	4.84	7.06	0.28	0.01	15.03	27.22	72.78
Data Processing, Hosting, and Related Services (NAICS 5182)	4.79	6.02	8.16	0.19	18.76	37.92	62.08
Other General Purpose Machinery Manufacturing (NAICS 3339)	4.53	3.37	5.74	0.00	19.63	33.26	66.74
Health and Personal Care Stores (NAICS 4461)	9.91	0.74	8.84	2.41	7.14	29.04	70.96
Forging and Stamping (NAICS 3321)	4.19	2.37	5.70	0.00	19.89	32.15	67.85
Vocational Rehabilitation Services (NAICS 6243)	4.79	2.29	6.55	0.15	22.33	36.11	63.89
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing (NAICS 3334)	4.06	3.10	4.86	0.00	18.30	30.33	69.67
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)	4.39	2.32	5.46	0.31	19.13	31.62	68.38
Motor Vehicle Body and Trailer Manufacturing (NAICS 3362)	4.02	2.47	4.18	0.00	19.72	30.40	69.60
Services to Buildings and Dwellings (NAICS 5617)	4.69	11.64	5.42	0.07	16.40	38.23	61.77
Electric Power Generation, Transmission and Distribution (NAICS 2211)	0.08	6.10	9.05	0.00	9.80	25.05	74.95
Pulp, Paper, and Paperboard Mills (NAICS 3221)	3.97	1.99	4.47	0.00	21.07	31.49	68.51
Bakeries and Tortilla Manufacturing (NAICS 3118)	4.37	2.64	4.94	0.00	24.73	36.68	63.32

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Foundries (NAICS 3315)	3.76	1.88	10.02	0.00	19.59	35.25	64.75
Commercial and Service Industry Machinery Manufacturing (NAICS 3333)	4.76	5.05	4.65	0.00	23.20	37.66	62.34
Semiconductor and Other Electronic Component Manufacturing (NAICS 3344)	4.60	3.56	5.48	0.25	21.07	34.96	65.04
Aerospace Product and Parts Manufacturing (NAICS 3364)	6.28	2.04	4.20	0.00	19.89	32.41	67.59
Insurance Carriers (NAICS 5241)	6.09	5.55	2.79	0.30	12.10	26.83	73.17
Alumina and Aluminum Production and Processing (NAICS 3313)	3.85	2.24	4.32	0.00	22.21	32.62	67.38
Specialized Design Services (NAICS 5414)	9.19	8.76	3.57	0.03	37.04	58.60	41.40
General Freight Trucking (NAICS 4841)	5.65	9.49	4.16	0.21	7.46	26.98	73.02
Metalworking Machinery Manufacturing (NAICS 3335)	5.07	3.44	4.35	0.00	18.99	31.85	68.15
Cut and Sew Apparel Manufacturing (NAICS 3152)	4.56	2.61	7.68	0.00	22.97	37.81	62.19
Other Information Services (NAICS 5191)	4.23	6.30	5.11	0.00	14.85	30.50	69.50
Furniture Stores (NAICS 4421)	9.71	1.71	7.97	2.31	8.98	30.69	69.31
Textile and Fabric Finishing and Fabric Coating Mills (NAICS 3133)	9.72	0.74	7.32	1.93	9.44	29.15	70.85
Other Motor Vehicle Dealers (NAICS 4412)	9.72	1.19	7.83	2.33	6.93	27.99	72.01
Automotive Repair and Maintenance (NAICS 8111)	5.53	13.58	5.35	0.09	16.96	41.51	58.49
Remediation and Other Waste Management Services (NAICS 5629)	4.71	7.53	5.56	0.73	13.40	31.93	68.07
Soap, Cleaning Compound, and Toilet Preparation Manufacturing (NAICS 3256)	4.38	2.15	5.88	0.37	25.81	38.59	61.41
Glass and Glass Product Manufacturing (NAICS 3272)	3.83	3.05	5.08	0.00	25.67	37.63	62.37
Motion Picture and Video Industries (NAICS 5121)	6.66	12.43	5.16	0.02	19.38	43.65	56.35
Other Ambulatory Health Care Services (NAICS 6219)	4.59	2.36	6.83	0.01	23.57	37.35	62.65
Spring and Wire Product Manufacturing (NAICS 3326)	4.09	2.16	4.51	0.00	18.15	28.90	71.10
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	2.28	5.92	4.98	0.34	12.60	26.13	73.87
Urban Transit Systems (NAICS	0.07	6.97	8.77	0.01	9.91	25.74	74.26

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
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Plastics Product Manufacturing (NAICS 3261)	4.56	3.06	4.86	0.13	19.73	32.34	67.66
Electric Lighting Equipment Manufacturing (NAICS 3351)	4.60	2.07	6.75	0.01	19.39	32.82	67.18
Other Investment Pools and Funds (NAICS 5259)	4.92	7.21	0.40	0.00	14.79	27.33	72.67
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)	7.10	12.73	5.70	0.05	17.97	43.54	56.46
Industrial Machinery Manufacturing (NAICS 3332)	4.06	2.03	6.13	0.00	20.51	32.74	67.26
Sporting Goods, Hobby, and Musical Instrument Stores (NAICS 4511)	9.47	2.31	7.93	2.19	9.17	31.07	68.93
Veneer, Plywood, and Engineered Wood Product Manufacturing (NAICS 3212)	4.36	2.58	4.25	0.00	17.30	28.50	71.50
Utility System Construction (NAICS 2371)	0.79	3.48	6.43	0.01	11.53	22.24	77.76
Boiler, Tank, and Shipping Container Manufacturing (NAICS 3324)	8.82	2.65	4.05	0.00	16.66	32.17	67.83
Offices of Physicians (NAICS 6211)	4.61	2.55	7.53	0.02	24.55	39.27	60.73
Other Personal Services (NAICS 8129)	5.50	13.48	5.06	0.00	16.68	40.72	59.28
Other Fabricated Metal Product Manufacturing (NAICS 3329)	4.43	2.78	5.35	0.01	23.21	35.79	64.21
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)	9.63	1.37	8.18	2.29	8.87	30.34	69.66
Direct Selling Establishments (NAICS 4543)	10.49	0.77	7.87	2.40	7.75	29.30	70.70
Business Support Services (NAICS 5614)	9.17	9.24	3.88	0.01	34.31	56.60	43.40
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)	10.49	1.09	8.47	2.28	8.98	31.32	68.68
Office Furniture (including Fixtures) Manufacturing (NAICS 3372)	4.35	3.14	6.59	1.12	17.87	33.07	66.93
Support Activities for Water Transportation (NAICS 4883)	0.19	8.24	8.58	0.00	11.55	28.56	71.44
Engine, Turbine, and Power Transmission Equipment Manufacturing (NAICS 3336)	4.83	2.86	7.00	0.00	16.52	31.21	68.79
Support Activities for Road Transportation (NAICS 4884)	5.47	13.25	5.14	0.00	16.64	40.50	59.50

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Building Material and Supplies Dealers (NAICS 4441)	9.99	1.19	7.87	2.41	8.08	29.53	70.47
Audio and Video Equipment Manufacturing (NAICS 3343)	4.74	2.78	7.03	0.03	17.71	32.28	67.72
Advertising, Public Relations, and Related Services (NAICS 5418)	4.47	6.37	7.25	0.25	18.56	36.89	63.11
Support Activities for Air Transportation (NAICS 4881)	6.59	5.10	5.74	0.85	12.65	30.92	69.08
Other Transit and Ground Passenger Transportation (NAICS 4859)	5.22	9.03	5.12	0.43	8.92	28.73	71.27
Paint, Coating, and Adhesive Manufacturing (NAICS 3255)	5.54	2.97	4.76	0.00	19.72	32.99	67.01
Charter Bus Industry (NAICS 4855)	0.78	7.68	9.14	0.27	14.02	31.89	68.11
Legal Services (NAICS 5411)	4.61	2.55	7.09	0.03	24.52	38.80	61.20
School and Employee Bus Transportation (NAICS 4854)	0.86	6.46	9.01	0.01	13.99	30.33	69.67
Motor Vehicle Parts Manufacturing (NAICS 3363)	4.30	2.02	4.42	0.06	18.21	29.01	70.99
Apparel Accessories and Other Apparel Manufacturing (NAICS 3159)	4.29	2.08	9.43	0.14	25.82	41.76	58.24
Other Financial Investment Activities (NAICS 5239)	4.70	7.14	0.06	0.00	15.49	27.40	72.60
Other Leather and Allied Product Manufacturing (NAICS 3169)	6.71	1.99	4.28	6.90	23.60	43.49	56.51
Rubber Product Manufacturing (NAICS 3262)	5.40	3.81	6.09	0.00	21.11	36.42	63.58
Dairy Product Manufacturing (NAICS 3115)	4.35	2.03	5.97	0.00	18.04	30.39	69.61
Nonferrous Metal (except Aluminum) Production and Processing (NAICS 3314)	3.40	1.70	4.52	0.00	30.28	39.91	60.09
Other Food Manufacturing (NAICS 3119)	4.32	2.99	5.67	0.42	20.80	34.21	65.79
Other Wood Product Manufacturing (NAICS 3219)	4.13	2.73	8.76	0.00	18.32	33.95	66.05
Other Textile Product Mills (NAICS 3149)	4.03	2.79	7.99	0.01	21.94	36.75	63.25
Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers (NAICS 4248)	9.61	3.12	9.29	2.29	8.17	32.48	67.52
Full-Service Restaurants (NAICS 7221)	5.49	5.87	6.63	0.58	15.30	33.89	66.11
Local Messengers and Local Delivery (NAICS 4922)	0.25	9.36	8.48	0.44	10.54	29.07	70.93

M/WBE Availability in New York's Marketplace

Detailed Industry	African-American	Hispanic	Asian	Native American	Non-minority Female	M/WBE	Non-M/WBE
Personal and Household Goods Repair and Maintenance (NAICS 8114)	6.13	13.34	4.87	0.00	19.46	43.80	56.20
Lawn and Garden Equipment and Supplies Stores (NAICS 4442)	9.69	1.46	7.88	2.30	9.37	30.71	69.29
Lessors of Real Estate (NAICS 5311)	5.05	7.03	0.73	0.00	16.64	29.45	70.55
Clay Product and Refractory Manufacturing (NAICS 3271)	4.01	2.00	4.44	0.00	20.60	31.04	68.96
Fabric Mills (NAICS 3132)	3.88	2.55	4.39	0.00	21.79	32.61	67.39
Coating, Engraving, Heat Treating, and Allied Activities (NAICS 3328)	4.72	3.45	4.99	0.33	18.98	32.47	67.53
Book, Periodical, and Music Stores (NAICS 4512)	9.47	1.68	8.27	2.16	12.17	33.74	66.26
Warehousing and Storage (NAICS 4931)	0.38	6.47	9.63	0.18	10.89	27.55	72.45
Cutlery and Handtool Manufacturing (NAICS 3322)	4.06	2.91	4.62	0.00	19.14	30.72	69.28
<i>COMMODITIES</i>	<i>3.66</i>	<i>4.64</i>	<i>7.45</i>	<i>0.37</i>	<i>10.93</i>	<i>27.05</i>	<i>72.95</i>

Source: See Table 4.1.

M/WBE Availability in New York's Marketplace

Table 4.17. Estimated Availability—Overall and By Procurement Category

Detailed Industry	African-American	Hispanic	Asian	Native American	MBE	Non-minority Female	M/WBE	Non-M/WBE
CONSTRUCTION	4.00	6.94	3.18	0.21	14.33	8.41	22.74	77.26
CRS	3.19	4.66	4.46	0.90	13.21	11.32	24.53	75.47
SERVICES	3.50	4.19	11.56	0.35	19.60	17.44	37.04	62.96
COMMODITIES	3.66	4.64	7.45	0.37	16.12	10.93	27.05	72.95
TOTAL	3.71	5.41	7.08	0.33	16.53	12.39	28.92	71.08

Source: See Table 4.1.

V. Statistical Disparities in Minority and Female Business Formation and Business Owner Earnings

A. Review of Relevant Literature

In this chapter we examine disparities in business formation and earnings principally in the private sector, where contracting activities are generally *not* subject to M/WBE or other affirmative action requirements. Statistical examination of disparities in the private sector of the relevant geographic marketplace is important for several reasons. First, to the extent that discriminatory practices by contractors, suppliers, insurers, lenders, customers, and others limit the ability of M/WBEs to compete, those practices will impact the larger private sector as well as the public sector. Second, examining the utilization of M/WBEs in the private sector provides an indicator of the extent to which M/WBEs are used in the absence of race-conscious efforts, since few firms in the private sector make such efforts. Third, the Supreme Court in *Croson* and other courts acknowledged that state and local governments have a constitutional duty not to contribute to the perpetuation of discrimination in the private sector of their relevant geographic and product markets.

After years of comparative neglect, research on the economics of entrepreneurship—especially upon self-employment—has expanded in the last twenty years.¹⁷³ There is a good deal of agreement in the literature on the micro-economic correlates of self-employment.¹⁷⁴ In the U.S., it appears that self-employment rises with age, is higher among men than women and higher among non-minorities than African-Americans. The least educated have the highest probability of being self-employed. However, evidence is also found in the U.S. that the most highly educated also have relatively high probabilities. On average, however, increases in educational attainment are generally found to lead to increases in the probability of being self-employed. A higher number of children in the family increases the likelihood of (male) self-employment. Workers in agriculture and construction are also especially likely to be self-employed.

There has been relatively less work on how institutional factors influence self-employment. Such work that has been conducted includes examining the role of minimum wage legislation (Blau,

¹⁷³ Microeconomic work includes Fuchs (1982), Borjas and Bronars (1989), Evans and Jovanovic (1989), Evans and Leighton (1989), Fairlie and Meyer (1996, 1998), Reardon (1998), Fairlie (1999), Wainwright (2000), Blanchflower and Wainwright (2005), and Blanchflower (2009) for the United States, Rees and Shah (1986), Pickles and O'Farrell (1987), Blanchflower and Oswald (1990, 1998), Meager (1992), Blanchflower and Freeman (1994), Taylor (1996), Robson (1998a, 1998b), and Blanchflower and Shadforth (2007) for the UK, DeWit and van Winden (1990) for the Netherlands, Alba-Ramirez (1994) for Spain, Bernhardt (1994), Schuetze (1998), Arai (1997), Lentz and Laband (1990), and Kuhn and Schuetze (1998) for Canada, LaFerrere and McEntee (1995) for France, Blanchflower and Meyer (1994) and Kidd (1993) for Australia, and Foti and Vivarelli (1994) for Italy. There are also several theoretical papers including Kihlstrom and Laffont (1979), Kanbur (1982), Holmes and Schmitz (1990), Croate and Tennyson (1992), and Cagetti and DeNardi (2006), plus a few papers that draw comparisons across countries *i.e.* Schuetze (1998) for Canada and the U.S., Blanchflower and Meyer (1994) for Australia and the U.S., Alba-Ramirez (1994) for Spain and the United States, and Acs and Evans (1994), Blanchflower (2000), Blanchflower, Oswald, and Stutzer (2001), and Blanchflower and Oswald (2008) for many countries.

¹⁷⁴ Parker (2004) and Aronson (1991) provide good overviews.

1987), immigration (Fairlie and Meyer, 1998; 2003; Olson, Zuiker and Montalto, 2000; Mora and Davila 2006, Robles and Cordero-Gúzman, 2007),¹⁷⁵ immigration policy (Borjas and Bronars, 1989), and retirement policies (Quinn, 1980). Studies by Long (1982), and Blau (1987), and more recently by Schuetze (1998), have considered the role of taxes.¹⁷⁶ A number of other studies have also considered the cyclical aspects of self-employment and in particular how movements of self-employment are correlated with movements in unemployment. Meager (1992), provides a useful summary of much of this work.¹⁷⁷

Blanchflower, Oswald and Stutzer (2001) found that there is a strikingly large latent desire to own a business. There exists frustrated entrepreneurship on a huge scale in the U.S. and other Organization for Economic Co-operation and Development (OECD) countries.¹⁷⁸ In the U.S., 7 out of 10 people say they would prefer to be self-employed. This compares to an actual proportion of self-employed people in 2001 of 7.3 percent of the civilian labor force, which also shows that the proportion of the labor force that is self-employed has declined steadily since 1990 following a small increase in the rate from 1980 to 1990. This raises an important question. Why do so few individuals in the U.S. and OECD countries manage to translate their preferences into action? Lack of start-up capital is one likely explanation. This factor is commonly cited by

¹⁷⁵ Fairlie and Meyer (1998) found that immigration had no statistically significant impact at all on African-American self-employment. In a subsequent paper Fairlie and Meyer (2004), found that self-employed immigrants did displace self-employed native non-African-Americans. They found that immigration has a large negative effect on the probability of self-employment among native non-African-Americans, although, surprisingly, they found that immigrants increase native self-employment earnings.

¹⁷⁶ In an interesting study pooling individual level data for the U.S. and Canada from the CPS and the Survey of Consumer Finances, respectively, Schuetze (1998), finds that increases in income taxes have large and positive effects on the male self-employment rate. He found that a 30 percent increase in taxes generated a rise of 0.9 to 2.0 percentage points in the male self-employment rate in Canada compared with a rise of 0.8 to 1.4 percentage points in the U.S. over 1994 levels.

¹⁷⁷ Evans and Leighton (1989) found that non-minority men who are unemployed are nearly twice as likely as wage workers to enter self-employment. Bogenhold and Staber (1991) also find evidence that unemployment and self-employment are positively correlated. Blanchflower and Oswald (1990) found a strong negative relationship between regional unemployment and self-employment for the period 1983-1989 in the U.K. using a pooled cross-section time-series data set. Blanchflower and Oswald (1998) confirmed this result, finding that the log of the county unemployment rate entered negatively in a cross-section self-employment model for young people age 23 in 1981 and for the same people aged 33 in 1991. Taylor (1996) confirmed this result using data from the British Household Panel Study of 1991, showing that the probability of being self-employed rises when expected self-employment earnings increase relative to employee earnings, *i.e.*, when unemployment is low. Acs and Evans (1994) found evidence from an analysis of a panel of countries that the unemployment rate entered negatively in a fixed effect and random effects formulation. However, Schuetze (1998) found that for the U.S. and Canada the elasticity of the male self-employment rate with respect to the unemployment rate was considerably smaller than found for the effect from taxes discussed above. The elasticity of self-employment associated with the unemployment rate is about 0.1 in both countries using 1994 figures. A decrease of 5 percentage points in the unemployment rate in the U.S. (about the same decline occurred from 1983-1989) leads to about a 1 percentage point decrease in self-employment. Blanchflower (2000) found that there is generally a negative relationship between the self-employment rate and the unemployment rate. It does seem then that there is some disagreement in the literature on whether high unemployment acts to discourage self-employment because of the lack of available opportunities or encourage it because of the lack of viable alternatives.

¹⁷⁸ The OECD is an international organization of those developed countries that accept the principles of representative democracy and a free market economy. There are currently 30 full members.

small-business managers themselves (Blanchflower and Oswald, 1998). There is also econometric evidence that confirms this barrier. Holding other influences constant, people who inherit cash, who win the lottery, or who have large family assets, are all more likely both to set up and sustain a lasting small business. By contrast, childhood personality test-scores turn out to have almost no predictive power about which persons will be running their own businesses as adults (Blanchflower and Oswald, 1998).

One primary impediment to entrepreneurship among minorities is lack of capital. In work based on U.S. micro data at the level of the individual, Evans and Leighton (1989), and Evans and Jovanovic (1989), have argued formally that entrepreneurs face liquidity constraints. The authors use the National Longitudinal Survey of Young Men for 1966-1981, and the Current Population Surveys for 1968-1987. The key test shows that, all else remaining equal, people with greater family assets are more likely to switch to self-employment from employment. This asset variable enters econometric equations significantly and with a quadratic form. Although Evans and his collaborators draw the conclusion that capital and liquidity constraints bind, this claim is open to the objection that other interpretations of their correlation are feasible. One possibility, for example, is that inherently acquisitive individuals both start their own businesses and forego leisure to build up family assets. In this case, there would be a correlation between family assets and movement into self-employment even if capital constraints did not exist. A second possibility is that the correlation between family assets and the movement to self-employment arises because children tend to inherit family firms. Blanchflower and Oswald (1998), however, find that the probability of self-employment depends positively upon whether the individual ever received an inheritance or gift.¹⁷⁹ Moreover, when directly questioned in interview surveys, potential entrepreneurs say that raising capital is their principal problem. Work by Holtz-Eakin, Joulfaian and Harvey (1994a, 1994b), drew similar conclusions using different methods on U.S. data, examining flows into and out of self-employment and finding that inheritances both raise entry and slow exit. In contrast, Hurst and Lusardi (2004), citing evidence from the U.S. *Panel Study of Income Dynamics*, claim to show that wealth is not a significant determinant of entry into self-employment. In response, however, Fairlie and Krashinsky (2006) have demonstrated that when the sample is split into two segments—those who enter self-employment after job loss and those who do not—the strong correlation between assets and rate of entry business formation is evident in both segments.

The work of Black *et al.* (1996) for the United Kingdom discovers an apparently powerful role for house prices (through its impact on equity withdrawal) in affecting the supply of small new firms. Cowling and Mitchell (1997), find a similar result. Again this is suggestive of capital constraints. Finally, Lindh and Ohlsson (1996) adopt the Blanchflower-Oswald procedure and provide complementary evidence for Sweden. Bernhardt (1994), in a study for Canada, using data from the 1981 Social Change in Canada Project also found evidence that capital constraints appear to bind. Using the 1991 French Household Survey of Financial Assets, Laferrere and McEntee (1995), examined the determinants of self-employment using data on intergenerational transfers of wealth, education, informal human capital and a range of demographic variables.

¹⁷⁹ This emerges from British data, the National Child Development Study; a birth cohort of children born in March 1958 who have been followed for the whole of their lives.

They also find evidence of the importance played by the family in the decision to enter self-employment. Intergenerational transfers of wealth, familial transfers of human capital and the structure of the family were found to be determining factors in the decision to move from wage work into entrepreneurship. Broussard et al. (2003) found that the self-employed have between 0.2 and 0.4 more children compared to the non-self-employed. The authors argue that having more children can increase the likelihood that an inside family member will be a good match at running the business. One might also think that the existence of family businesses, which are particularly prevalent in construction and in agriculture, is a further way to overcome the existence of capital constraints. Transfers of firms within families will help to preserve the status quo and will work against the interests of African-Americans in particular who do not have as strong a history of business ownership as indigenous non-minorities. Analogously, Hout and Rosen (2000) and Fairlie and Robb (2007a) found that the offspring of self-employed parents are more likely than others to become self-employed and argued that the historically low rates of self-employment among African-Americans and Latinos may contribute to their low contemporary rates. Fairlie and Robb (2007b), using data from the U.S. *Characteristics of Business Owners* survey, and Dunn and Holtz-Eakin (2000), using data from the U.S. *National Longitudinal Surveys*, show that the transmission of positive effects of family on self-employment operates through two channels, intergenerational transmission of entrepreneurial preferences and wealth, and the acquisition of general and specific human capital.

A continuing puzzle in the literature has been why, nationally, the self-employment rate of African-American males is one third of that of non-minority males and has remained roughly constant since 1910. Fairlie and Meyer (2000) rule out a number of explanations for the difference. They found that trends in demographic factors, including the Great Migration and the racial convergence in education levels “did not have large effects on the trend in the racial gap in self-employment” (p. 662). They also found that an initial lack of business experience “cannot explain the current low levels of black self-employment.” Further they found that “the lack of traditions in business enterprise among blacks that resulted from slavery cannot explain a substantial part of the current racial gap in self-employment” (p. 664).

Fairlie (1999) and Wainwright (2000) have shown that a considerable part of the explanation of the differences between the African-American and non-minority self-employment rate can be attributed to discrimination. Using PUMS data from the 1990 Census, Wainwright (2000) demonstrated that these disparities tend to persist even when factors such as geography, industry, occupation, age, education and assets are held constant.

Bates (1989) finds strong supporting evidence that racial differences in levels of financial capital have significant effects upon racial patterns in business failure rates. Fairlie (1999, 2006) demonstrates, for example, that the African-American exit rate from self-employment is twice as high as that of non-minorities. An example will help to make the point. Two baths are being filled with water. In the first scenario, both have the plug in. Water flows into bath A at the same rate as it does into bath B -- that is, the inflow rate is the same. When we return after ten minutes the amount of water (the stock) will be the same in the two baths as the inflow rates were the same. In the second scenario, we take out the plugs and allow for the possibility that the outflow rates from the two baths are different. Bath A (the African-American firms) has a much larger drain and hence the water flows out more quickly than it does from bath B (the non-minority firms). When we return after 10 minutes, even though the inflow rates are the same there is much

less water in bath A than there is in bath B. A lower exit rate for non-minority-owned firms than is found for minority-owned firms is perfectly consistent with the observed fact that minority-owned firms are younger and smaller than non-minority-owned firms. The extent to which that will be true is a function of the relative sizes of the inflow and the outflow rates.

B. Race and Sex Disparities in Earnings

In this section, we examine earnings to determine whether minority and female entrepreneurs earn less from their businesses than do their non-minority male counterparts. Other things equal, if minority and female business owners as a group cannot achieve comparable earnings from their businesses as similarly-situated non-minorities because of discrimination, then failure rates for M/WBEs will be higher and M/WBE formation rates will be lower than would be observed in a race- and gender-neutral marketplace. Both phenomena would contribute directly to lower levels of minority and female business ownership.

Below, we first examine earnings disparities among wage and salary employees, that is, non-business owners. It is helpful to examine this segment of the labor force since a key source of new entrepreneurs in any given industry is the pool of experienced wage and salary workers in similar or related industries (Blanchflower, 2000; 2004). Employment discrimination that adversely impacts the ability of minorities or women to succeed in the labor force directly shrinks the available pool of potential M/WBEs. In almost every instance examined, a statistically significant adverse impact on wage and salary earnings is observed—both the economy at large and also in the construction and construction-related professional services sector.¹⁸⁰

We then turn to an examination of differences in earnings among the self-employed, that is, among business owners. Here too, among the pool of minorities and women who have formed businesses despite discrimination in both employment opportunities and business opportunities, statistically significant adverse impacts are observed in the vast majority of cases in construction and construction-related professional services (hereafter, “construction”), and other sectors of the economy.

In the remainder of this Chapter we discuss the methods and data we employed and present the specific findings.

1. Methods

We used the statistical technique of linear regression analysis to estimate the effect of each of a set of observable characteristics, such as education and age, on an outcome variable of interest. In this case, the outcome variable of interest is earnings and we used regression to compare

¹⁸⁰ There is a growing body of evidence that discriminatory constraints in the capital market prevent minority-owned businesses from obtaining business loans. Furthermore, even when they are able to obtain them there is evidence that these loans are not obtained on equal terms: minority-owned firms have to pay higher interest rates, other things being equal. This is another form of discrimination with an obvious and direct impact on the ability of racial minorities to form businesses and to expand or grow previously formed businesses. *See* Chapter VI, *infra*.

earnings among individuals in similar geographic and product markets at similar points in time and with similar years of education and potential labor market experience and see if any adverse race or sex differences remain. In a discrimination free marketplace, one would not expect to observe significant differences in earnings by race or sex among such similarly situated observations.

Regression also allows us to narrowly tailor our statistical tests to the State's relevant geographic market, and assess whether disparities in that market are statistically significantly different from those observed elsewhere in the nation. Starting from an economy-wide data set, we first estimated the basic model of earnings differences just described and also included an indicator variable for the New York State Market Area (NYSMA), which encompasses the State of New York and the balance of the New York-Northern New Jersey-Long Island, NY-NJ-CT CMSA. This model appears as Specification (1) in Tables 5.1 through 5.12. Next, we estimated Specification (2), which is the same model as (1) but with the addition of indicator variables that interact race and sex with the NYSMA indicator. Specification (3) represents our ultimate specification, which includes all the variables from the basic model as well as any of the interaction terms from Specification (2) that were statistically significant.¹⁸¹

Any negative and statistically significant differences by race or sex that remain in Specification (3) after holding all of these other factors constant—time, age, education, geography, and industry—are consistent with what would be observed in a market suffering from business-related discrimination.¹⁸²

2. Data

The analyses undertaken in this Study require individual-level data (*i.e.* “microdata”) with relevant information on business ownership status and other key socioeconomic characteristics. Two primary data sources are used.

The first is the American Community Survey (ACS) Public Use Microdata Sample (PUMS) for 2006–2008. The Census Bureau's ACS is an ongoing survey covering the same type of information collected in the decennial census. The ACS is sent to approximately 3 million addresses annually, including housing units in all counties in the 50 states and the District of Columbia. The PUMS files from the ACS contain records for a subsample of the full ACS. The data used here are the multi-year estimates combining the 2006, 2007, and 2008 ACS PUMS records. The combined file contains over 3.6 million person-level records. Released in early 2010, the ACS PUMS provides the full range of population and housing information collected in the annual ACS and in the decennial census. Business ownership status is identified in the ACS PUMS through the “class of worker” variable, which distinguishes the unincorporated and incorporated self-employed from others in the labor force. The presence of the class of worker

¹⁸¹ If none of these terms is significant then Specification (3) reduces to Specification (1).

¹⁸² Typically, a given test statistic is considered to be statistically significant if there is a reasonably low probability that the value of the statistic is due to random chance alone. In this and the two following chapters we typically indicate three levels of statistical significance, corresponding to 10 percent, 5 percent, and 1 percent probabilities that results were the result of random chance.

variable allows us to construct a detailed cross-sectional sample of individual business owners and their associated earnings.

The second source of data is the Annual Demographic File from the Current Population Survey (CPS).¹⁸³ The CPS has been conducted monthly by the Census Bureau and the Bureau of Labor Statistics for over 40 years, and is a primary source of official government statistics on employment and unemployment. Currently, about 56,500 households are scientifically selected for the CPS on the basis of area of residence in order to represent the nation as a whole, individual states and the largest metropolitan areas. In addition to information on employment status, the CPS collects information on age, sex, race, marital status, educational attainment, earnings, occupation, industry, and other characteristics. These statistics serve to update the information collected every 10 years through the decennial census.

3. Findings: Race and Sex Disparities in Wage and Salary Earnings

Tables 5.1 through 5.6 report results from our regression analyses of annual earnings among wage and salary workers. Tables 5.1 through 5.3 focus on the economy as a whole and Tables 5.4 through 5.6 on Construction and CRS. Tables 5.1 and 5.4 are derived from the 2006–2008 ACS PUMS, Tables 5.2 and 5.5 are derived from the 1980–1991 March CPS files, and Tables 5.3 and 5.6 are derived from the 1992–2008 March CPS files. The numbers shown in each of these six tables indicate the percentage difference between the average wages of a given race/sex group and comparable non-minority males.

a. Specification (1) - the Basic Model

For example, in Table 5.1 Specification (1) the estimated percentage difference in annual wages between African-Americans (both sexes) and non-minority males in 2006–2008 was -32.6 percent. That is, average annual wages among African-Americans were 32.6 percent lower than for non-minority males who were otherwise similar in terms of geographic location, industry, age, and education. The number in parentheses below each percentage difference is the t-statistic, which indicates whether the estimated percentage difference is statistically significant or not. In Tables 5.1 through 5.6, a t-statistic of 1.99 or larger indicates statistical significance at a 95 percent confidence level or better.¹⁸⁴ In the example just used, the t-statistic of 172.0 indicates that the result is statistically significant.

Specification (1) in Tables 5.1-5.3 shows adverse and statistically significant wage disparities for African-Americans, Hispanics, Asians, Native Americans, persons reporting in multiple race categories, and non-minority women consistent with the presence of discrimination in these markets. Observed disparities are large as well, ranging from a low of -12.7 percent for the

¹⁸³ The Annual Demographic Survey of the CPS is conducted each March. It contains all the monthly CPS data plus additional data on work experience, income and earnings, noncash benefits, and migration. *See* King, Ruggles, et al. (2009).

¹⁸⁴ From a two-tailed test.

“other race” category (primarily Asians and Native Americans) in Table 5.2 to a high of -32.6 percent for African-Americans in Table 5.1.

Specification (1) in Tables 5.4 through 5.6 shows similar results when the basic analysis is restricted to the Construction industries and the Architecture and Engineering (CRS) industries. In this sector, large, adverse, and statistically significant wage disparities are once again observed for African-Americans, Hispanics, Asians, Native Americans, persons reporting in multiple race categories, and non-minority women. A comparison of Tables 5.1 and 5.4 shows that for Hispanics, Asians, and Native Americans, the disparities in the Construction and CRS sector are somewhat smaller than those observed in the economy as a whole. For African-Americans and non-minority women, they are somewhat larger.

A comparison of Tables 5.2 and 5.3 shows changes in observed wage disparities over time for the economy as a whole. Tables 5.5 and 5.6 do the same for Construction and CRS.

For African-Americans between 1980 and 1991, the wage disparity in the economy as a whole was 30.2 percent, shrinking slightly to 28.0 percent in the 1992-2008 period. In Construction and CRS, the disparity was 35.2 percent in the earlier period. Although diminishing significantly in recent years, to 24.2 percent, the disparity remains substantial.

For Hispanics between 1980 and 1991, the wage disparity in the economy as a whole was 20.4 percent, shrinking only slightly to 19.7 percent in the 1992-2008 period. In Construction and CRS, the disparity was 15.8 percent in the earlier period, actually increasing slightly to 16.7 percent in more recent years.

For Asians and Native Americans, tracking time trends is more difficult since in the earlier period these two groups were combined together in the CPS into the category “Other race.” In the economy as a whole, the wage disparity for the “Other race” category in the 1980-1991 period was 12.7 percent. In the 1992-2008 period, the wage disparities worsened significantly: to 21.7 percent for Asians and 23.4 percent for Native Americans. In Construction and CRS, the “Other race” disparity in the earlier period was 12.8 percent, growing to 18.3 percent for Asians and 15.6 percent for Native Americans during the 1992-2008 period.

For non-minority women between 1980 and 1991, the wage disparity in the economy as a whole was 28.3 percent, shrinking to 21.7 percent in the 1992-2008 period. In Construction and CRS, the disparity was 30.2 percent in the earlier period. Though diminishing significantly in recent years to 20.7 percent, the disparity for this group also remains large.

b. Specifications (2) and (3) - the Full Model Including NYSMA-Specific Interaction Terms

Next, we turn to Specifications (2) and (3) in Tables 5.1 through 5.6. In each of these Tables, Specification (2) is the basic regression model with a set of interaction terms added that test whether minorities and women in the NYSMA differ significantly from those elsewhere in the U.S. economy. Specification (2) in Table 5.1, for example, shows a -33.1 percent wage difference that estimates the direct effect of being African-American in 2006–2008, as well as a statistically significant 7.9 percent wage increment in that year that captures the indirect effect of

residing in the NYSMA and being African-American. That is, wages for African-Americans in the NYSMA, on average, were 7.9 percent higher than for African-Americans in the nation as a whole and 25.2 percent (-33.1 percent plus 7.9 percent) lower than for non-minority males in the NYSMA.

Specification (3) simply repeats Specification (2), dropping any NYSMA interactions that are not statistically significant. In Table 5.1, for example, the only interaction term included in the final specification is for Asians and Pacific Islanders. The net result of Specification (3) in Tables 5.1, 5.2 and 5.3 is evidence of large, adverse, and statistically significant wage disparities for all minority groups and for non-minority women. In Tables 5.4, 5.5 and 5.6, for Construction and CRS, there is evidence of large, adverse, and statistically significant wage disparities for all minority groups and for non-minority women as well.

c. Conclusions

Clearly, minorities and women earn substantially and significantly less from their labor than do their non-minority male counterparts—in the New York State market area just as in the nation as a whole. Such disparities are symptoms of discrimination in the labor force that, in addition to its direct effect on workers, reduces the future availability of M/WBEs by stifling opportunities for minorities and women to progress through precisely those internal labor markets and occupational hierarchies that are most likely to lead to entrepreneurial opportunities. These disparities reflect more than mere “societal discrimination” because they demonstrate the nexus between discrimination in the job market and reduced entrepreneurial opportunities for minorities and women. Other things equal, these reduced entrepreneurial opportunities in turn lead to lower M/WBE availability levels than would be observed in a race- and gender-neutral marketplace.

4. Findings: Race and Sex Disparities in Business Owner Earnings

The patterns of discrimination that affect minority and female wage earners affect minority and female entrepreneurs as well. We turn next to the analysis of race and sex disparities in business owner earnings. Tables 5.7 through 5.9 focus on the economy as a whole and Tables 5.10 through 5.12 on Construction and CRS. Tables 5.7 and 5.10 are derived from the 2006–2008 ACS PUMS, Tables 5.8 and 5.11 are derived from the 1980–1991 CPS, and Tables 5.9 and 5.12 are derived from the 1992–2008 CPS. The numbers shown in each of these six tables indicate the percentage difference between the average annual self-employment earnings of a given race/sex group and comparable non-minority males.

a. Specification (1) - the Basic Model

Specification (1) in Tables 5.7 through 5.9 shows large, adverse, and statistically significant business owner earnings disparities for African-Americans, Hispanics, Asians, Native Americans, persons reporting multiple races, and non-minority women consistent with the presence of discrimination in these markets. The measured difference for African-Americans ranges between 28 percent and 40 percent lower than for comparable non-minority males; for Hispanics, from 20 percent to 25 percent; for Asians, from 9 percent to 21 percent; for Native

Americans, from 28 percent to 36 percent; and for non-minority women from 38 percent to 46 percent.

Turning to the Construction and CRS sector, Specification (1) in Tables 5.10 through 5.12 shows large, adverse, and, with two exceptions, statistically significant business owner earnings disparities for African-Americans, Hispanics, Asians, Native Americans, persons reporting multiple races, and non-minority women consistent with the presence of discrimination in these markets.¹⁸⁵ The measured difference for African-Americans ranges between 23 percent and 43 percent lower than for comparable non-minority males; for Hispanics, 16 percent; for Asians, from 13 percent to 18 percent; for Native Americans, from 13 percent to 31 percent; and for non-minority women from 22 percent to 46 percent.

A comparison of Tables 5.8 and 5.9 shows changes in observed business owner earnings disparities over time for the economy as a whole. Tables 5.11 and 5.12 do the same for Construction and CRS.

For African-Americans between 1980 and 1991, the business owner earnings disparity in the economy as a whole was 33.6 percent, shrinking to 28.0 percent in the 1992-2008 period. In Construction and CRS, the disparity was 39.6 percent in the earlier period. Although diminishing significantly in recent years, to 23.3 percent, the disparity remains quite large.

For Hispanics between 1980 and 1991, the business owner earnings disparity in the economy as a whole was 19.9 percent, increasing to 24.8 percent in the 1992-2008 period. In Construction and CRS, the disparity has remained constant at 16.0 percent.

For Asians and Native Americans, in the economy as a whole, the business owner earnings disparity for the “Other race” category in the 1980-1991 period was 9.0 percent. In the 1992-2008 period, the business owner earnings disparities worsened significantly: to 21.4 percent for Asians and 28.2 percent for Native Americans. In Construction and CRS, the “Other race” disparity in the earlier period was only 0.5 percent, but grew to 13.0 percent for Asians and 12.8 percent for Native Americans during the 1992-2008 period.

For non-minority women between 1980 and 1991, the business owner earnings disparity in the economy as a whole was 45.7 percent, shrinking to 37.8 percent in the 1992-2008 period. In Construction and CRS, the disparity was 38.1 percent in the earlier period and, although diminishing significantly in recent years to 22.4 percent, the disparity remains large.

b. Specifications (2) and (3) - the Full Model Including NYSMA-Specific Interaction Terms

Next, we turn to Specifications (2) and (3) in Tables 5.7 through 5.12. Specification (2) is the basic regression model enhanced by a set of interaction terms to test whether minorities and women in the NYSMA differ significantly from those elsewhere in the U.S. economy. Specification (3) drops any NYSMA interaction terms that are not statistically significant.

¹⁸⁵ The adverse disparity for “Other races” in Table 5.11 is not statistically significant.

For the economy as a whole in 2000, Table 5.7 shows that only the NYSMA interaction term for Hispanics is statistically significant, indicating that disparities for minorities in NYSMA are no better or worse than in the nation as a whole, while disparities for Hispanics are significantly worse in the NYSMA than in the nation as a whole. Table 5.8 for the 1980-1991 period, and Table 5.9 for the 1992-2008 period, shows that minorities and non-minority women face disparities in the NYSMA that are similar to those observed in the nation as a whole.

For the Construction and CRS sector in 2006–2008, Tables 5.10, 5.11, and 5.12 show that the estimates for the NYSMA are in agreement with results for the nation as a whole, with the exception that Table 5.12 shows significantly worse disparities for African Americans in the NYSMA.

c. Conclusions

As was the case for wage and salary earners, minority and female entrepreneurs earn substantially and significantly less from their efforts than similarly situated non-minority male entrepreneurs. The situation is, in general, little different in the New York State market area than in the nation as a whole. These disparities are a symptom of discrimination in commercial markets that directly and adversely affect M/WBEs. Other things equal, if minorities and women are prevented by discrimination from earning remuneration from their entrepreneurial efforts comparable to that of similarly situated non-minority males, then growth rates may slow, business failure rates may increase, and as demonstrated in the next section, business formation rates may decrease. Combined, these phenomena result in lower M/WBE availability levels than would be observed in a race- and gender-neutral marketplace.

C. Race and Sex Disparities in Business Formation

As discussed in the two prior sections, discrimination that affects the wages and entrepreneurial earnings of minorities and women will ultimately affect the number of businesses formed by these groups as well. In the final section of this chapter, we turn to the analysis of race and sex disparities in business formation.¹⁸⁶ We compare self-employment rates by race and sex to determine whether minorities or women are as likely to enter the ranks of entrepreneurs as similarly-situated non-minority males. We find that they are not as likely to do so and that minority and female business formation rates would likely be substantially and significantly higher if markets operated in a race- and gender-neutral manner.

Discrimination in the labor market, symptoms of which are evidenced in Section B.3 above, might cause wage and salary workers to turn to self-employment in hopes of encountering less discrimination from customers and suppliers than from employers and co-workers. Other things equal, and assuming minority and female workers did not believe that discrimination pervaded commercial markets as well, this would lead minority and female business formation rates to be higher than would otherwise be expected.

¹⁸⁶ We use the phrases “business formation rates” and “self-employment rates” interchangeably in this Study.

On the other hand, discrimination in the labor market prevents minorities and women from acquiring the very skills, experience, and positions that are often observed among those who leave the ranks of the wage and salary earners to start their own businesses. Many construction contracting concerns have been formed by men who were once employed as foremen for other contractors, fewer by those who were employed instead as laborers. Similarly, discrimination in commercial capital and credit markets, as well as asset and wealth distribution, prevents minorities and women from acquiring the financial credit and capital that are so often prerequisite to starting or expanding a business. Other things equal, these phenomena would lead minority and female business formation rates to be lower than otherwise would be expected.

Further, discrimination by commercial customers and suppliers against M/WBEs, symptoms of which are evidenced in Section B.4 above and elsewhere, operates to increase input prices and lower output prices for M/WBEs. This discrimination leads to higher rates of failure for some minority and women firms, lower rates of profitability and growth for others, and prevents some minorities and women from ever starting businesses at all.¹⁸⁷ All of these phenomena, other things equal, would contribute directly to relatively lower observed rates of minority and female self-employment.

1. Methods and Data

To see if minorities or non-minority women are as likely to be business owners as are comparable non-minority males, we use a statistical technique known as Probit regression. Probit regression is used to determine the relationship between a categorical variable—one that can be characterized in terms of a “yes” or a “no” response as opposed to a continuous number—and a set of characteristics that are related to the outcome of the categorical variable. Probit regression produces estimates of the extent to which each characteristic is positively or negatively related to the likelihood that the categorical variable will be a yes or no. For example, Probit regression is used by statisticians to estimate the likelihood that an individual participates in the labor force, retires this year, or contracts a particular disease—these are all variables that can be categorized by a response of “yes” (for example, she is in the labor force) or “no” (for example, she is not in the labor force)—and the extent to which certain factors are positively or negatively related to the likelihood (for example, the more education she has, the more likely that she is in the labor force). Probit regression is one of several techniques that can be used to examine qualitative outcomes. Generally, other techniques such as Logit regression yield similar results.¹⁸⁸ In the present case, Probit regression is used to examine the relationship between the choice to own a business (yes or no) and the other demographic and socioeconomic characteristics in our basic model. The underlying data for this section is once again the 2006–2008 ACS PUMS, the 1980–1991 CPS, and the 1992–2008 CPS.

¹⁸⁷ See also the materials cited at fn. 180 *supra*.

¹⁸⁸ For a detailed discussion, see G.S. Maddala, *Limited Dependent and Qualitative Variables in Econometrics*, Cambridge University Press, 1983. Probit analysis is performed here using the “dprobit” command in the statistical program STATA.

2. Findings: Race and Sex Disparities in Business Formation

As a point of reference for what follows, Tables 5.13 and 5.14 provide a summary of business ownership rates in 2006–2008 by race and sex. A striking feature of both tables is how much higher business ownership rates are for non-minority males than for all other groups. Moreover, the disparities for almost every category are larger in the NYSMA than in the nation as a whole.

Table 5.13, for example, shows a 9.56 percentage point difference between the overall self-employment rate of African-Americans and non-minority Males in the NYSMA ($14.98 - 5.42 = 9.56$). In the top panel of Table 5.14, for Construction and CRS, an even larger 11.06 percentage point difference is observed for African-Americans compared to non-minority males in the NYSMA. As shown in the final column, this 11.06 percentage point gap translates into a African-American business formation rate in the NYSMA Construction and CRS sector that is 40.4 percent lower than the non-minority male business formation rate (*i.e.*, $(16.31 - 27.37) \div 27.37 \approx -40.4\%$). In the NYSMA Services and Commodities sector, similarly large business formation rate disparities are observed for all minority groups and non-minority women, as shown in the bottom panel of Table 5.14.

For African-Americans nationally, the overall business formation rate is 62.2 percent lower than the non-minority male rate. In the NYSMA, it is 63.8 percent lower. In the NYSMA Construction and CRS sector, the African-American rate is 40.4 percent lower, compared to 36.5 percent lower in the U.S. as a whole. In the NYSMA Services and Commodities sector, the African-American rate is 62.2 percent lower, compared to 59.9 percent lower for the nation as a whole.

For Hispanics nationally, the overall business formation rate is 39.2 percent lower than the non-minority male rate. In the NYSMA, it is 47.1 percent lower. In the NYSMA Construction and CRS sector, the Hispanic rate is 43.4 percent lower, compared to 44.2 lower percent for the nation as a whole. In the NYSMA Services and Commodities sector, the Hispanic rate is 44.6 percent lower, compared to 36.2 lower percent for the nation as a whole.

For Asians nationally, the overall business formation rate is 25.6 percent lower than the non-minority male rate. In the NYSMA, it is 27.4 percent lower. In the NYSMA Construction and CRS sector, the Asian rate is 34.7 percent lower, compared to 32.4 percent lower for the nation as a whole. In the NYSMA Services and Commodities sector, the Asian rate is 18.5 percent lower than the non-minority male rate, compared to 14.4 percent for the nation as a whole.

For Native Americans nationally, the overall business formation rate is 39.2 percent lower than the non-minority male rate. In the NYSMA, it is 39.6 percent lower. In the NYSMA Construction and CRS sector, the Native American rate is 0.7 percent higher, compared to 31.0 percent lower in the U.S. as a whole. In the NYSMA Services and Commodities sector, the Native American rate is 45.4 percent lower, compared to 38.5 percent lower for the nation as a whole.

For minorities as a group, nationally, the overall business formation rate is 44.1 percent lower than the non-minority male rate. In the NYSMA, it is 47.0 percent lower. In the NYSMA Construction and CRS sector, the minority rate is 41.1 percent lower, compared to 41.2 percent

lower for the nation as a whole. In the NYSMA Services and Commodities sector, the minority rate is 43.2 percent lower than the non-minority male rate, compared to 40.2 percent for the nation as a whole.

For non-minority women nationally, the overall business formation rate is 38.4 percent lower than the non-minority male rate. In the NYSMA, it is 43.2 percent lower. In the NYSMA Construction and CRS sector, the non-minority female rate is 49.4 percent lower, compared to 41.4 percent lower for the nation as a whole. In the NYSMA Services and Commodities sector, the non-minority female rate is 35.3 percent lower than the non-minority male rate, compared to 28.6 percent for the nation as a whole.

There is no doubt that part of the group differences expressed in Tables 5.13 and 5.14 are associated with differences in the distribution of individual characteristics and preferences between minorities, women, and non-minority males. It is well known, for example, that earnings tend to increase with age (i.e. labor market experience). It is also true that the propensity toward self-employment increases with experience.¹⁸⁹ Since most minority populations in the United States have a lower median age than the non-Hispanic non-minority population, we must examine whether the disparities in business ownership evidenced in Tables 5.13 and 5.14 are largely—or even entirely—due to differences in the age distribution or other factors such as education, geographic location, or industry preferences of minorities and non-minority women compared to non-minority males.

To do this, the remainder of this section presents a series of regression analyses that test whether large, adverse, and statistically significant race and sex disparities for minorities and women remain when these other factors are held constant. Tables 5.15 through 5.17 focus on the economy as a whole and Tables 5.18 through 5.20 focus on the Construction and CRS sector. As in previous sections, the first in each triad of tables is derived from the 2006–2008 ACS PUMS, the second from the 1980–1991 CPS, and the third from the 1992–2008 CPS. The numbers shown in each of these tables indicate the percentage point difference between the probability of self-employment for a given race/sex group compared to similarly-situated non-minority males.

a. Specification (1) - the Basic Model

Specification (1) in Tables 5.15 through 5.17 shows large, adverse, and statistically significant business formation disparities for African-Americans, Hispanics, Asians, Native Americans, persons reporting multiple races, and non-minority women consistent with the presence of discrimination in these markets. Specification (1) in Tables 5.18a through 5.20 shows large, negative, and statistically significant business formation disparities for every group in the Construction and CRS sectors as well as in the Goods and Services sectors.

Tables 5.16 and 5.17 for the economy as a whole, and Tables 5.19 and 5.20 for the Construction and CRS sector, show changes in observed business formation disparities over time.

¹⁸⁹ Wainwright (2000), p. 86.

For African-Americans between 1980 and 1991, the business formation rate disparity in the economy as a whole was 3.7 percentage points, remaining essentially unchanged at 3.6 percentage points in the 1992-2008 period. In Construction and CRS, the disparity was 12.2 percentage points in the earlier period, decreasing to 9.9 percentage points in the 1992-2008 period.

For Hispanics between 1980 and 1991, the business formation rate disparity in the economy as a whole was 2.2 percentage points, rising to 2.8 percentage points in the 1992-2008 period. In Construction and CRS, the disparity was 7.4 percentage points during 1980-1991, rising to 8.6 percentage points in the 1992-2008 period.

For Asians and Native Americans, in the economy as a whole, the business formation rate disparity for the “Other race” category in the 1980-1991 period was only 0.3 percentage points. In the 1992-2008 period, the business formation rate disparities worsened significantly: to 1.0 percentage points for Asians and 2.1 percentage points for Native Americans. In Construction and CRS, the “Other race” disparity in the earlier period was 7.9 percentage points, falling to 4.2 percentage points for Asians and 6.0 percentage points for Native Americans during the 1992-2008 period.

For non-minority women between 1980 and 1991, the business formation rate disparity in the economy as a whole was 3.3 percentage points, falling to 2.5 percentage points in the 1992-2008 period. In Construction and CRS, the disparity was 12.1 percent in the earlier period, falling to 8.7 percentage points in more recent years.

b. Specifications (2) and (3) - the Full Model Including NYSMA-Specific Interaction Terms

Several of the NYSMA interaction terms included in Specification (2) were significant. The final results are in Specification (3) for Tables 5.15-5.20.

To summarize for the economy-wide results (Tables 5.15, 5.16 and 5.17):

- For African-Americans, business formation rates are between 3.6 and 4.8 percentage points lower than what would be expected in a race- and gender-neutral marketplace.
- For Hispanics, business formation rates are between 3.2 percentage points and 3.7 percentage points lower than what would be expected in a race- and gender-neutral marketplace.
- For Asians, business formation rates are between 1.0 and 1.4 percentage points lower than what would be expected in a race- and gender-neutral marketplace.
- For Native Americans, business formation rates are between 2.1 and 2.7 percentage points lower than what would be expected in a race- and gender-neutral marketplace.
- For non-minority women, business formation rates are between 3.3 and 4.3 percentage points lower than what would be expected in a race- and gender-neutral marketplace.

To summarize for the Construction and CRS sector results (Tables 5.18a, 5.19 and 5.20):

- For African-Americans, business formation rates are between 9.2 and 12.2 percentage points lower than what would be expected in a race- and gender-neutral marketplace.
- For Hispanics, business formation rates are between 7.1 and 8.6 percentage points lower than what would be expected in a race- and gender-neutral marketplace.
- For Asians, business formation rates are between 4.2 and 6.3 percentage points lower than what would be expected in a race- and gender-neutral marketplace.
- For Native Americans, business formation rates are between 6.0 and 7.9 percentage points lower than what would be expected in a race- and gender-neutral marketplace.
- For non-minority women, business formation rates are between 11.8 and 18.0 percentage points lower than what would be expected in a race- and gender-neutral marketplace.

c. Conclusions

This section has demonstrated that observed M/WBE availability levels in the New York State market area are substantially and statistically significantly lower in every case examined than those that would be expected to be observed if commercial markets operated in a race- and gender-neutral manner. Discrimination results in minorities and women being substantially and significantly less likely to own their own businesses than would be expected based upon their observable characteristics including age, education, geographic location, industry, and trends over time. As demonstrated in previous sections, these groups also suffer substantial and significant earnings disadvantages relative to comparable non-minority males whether they work as employees or as entrepreneurs.

D. Expected Business Formation Rates—Implications for Current M/WBE Availability¹⁹⁰

In Table 5.21, the Probit regression results from Tables 5.15, 5.18a, and 5.18b for the overall New York state market area economy, the NYSMA Construction and CRS sector, and the NYSMA Services and Commodities sector, respectively, are combined with weighted average self-employment rates by race and sex from the 2006–2008 ACS PUMS (Tables 5.13 and 5.14) to determine the expected difference between baseline availability and expected availability in a race- and gender-neutral marketplace. These figures appear in column (2) of each panel in Table 5.21.

The business formation rate in the NYSMA for minorities and women in the Construction and CRS sector is 15.4 percent (see middle panel of Table 5.21, last row). According to the regression specification underlying Table 5.18a, however, that rate would be 24.4 percent, or 58.3 percent higher, in a race- and gender-neutral marketplace. Put differently, the disparity

¹⁹⁰ This exercise addresses the requirements of 49 CFR 26.45 (“Step 2”) for the USDOT DBE Program.

index of the actual business formation rate to the expected business formation rate is 63.2. Disparity indices are adverse and statistically significant for all groups examined.¹⁹¹

In Construction and CRS, the largest disparity observed is for non-minority females (56.5), followed in descending order by African-Americans (64.4), Hispanics (65.2), Native Americans (69.6), and Asians (73.7). For M/WBEs as a group in the NYSMA Construction and CRS sectors, the disparity index is 63.2.

In the Goods and Services sector, the largest disparity observed is for African-Americans (47.6), followed by Hispanics (71.2), non-minority women (71.6), Native Americans (72.5), persons reporting multiple races (78.5), and Asians (85.8). For M/WBEs as a group in the NYSMA Goods and Services sectors, the disparity index is 70.7.

Given the large disparities observed throughout Table 5.21, goal-setters may consider adjusting baseline estimates of M/WBE availability upward to account for the continuing effects of discrimination. The business formation rate disparities documented in Table 5.21 can be combined with the estimates of current M/WBE availability documented in Tables 4.17 and elsewhere to provide estimates of expected availability. These estimates appear below in Table 7.30. In every single instance in the New York State market area, expected M/WBE availability exceeds current M/WBE availability.

E. Evidence from the Survey of Business Owners

As a final check on the statistical findings in this Chapter, we present evidence from a Census Bureau data collection effort dedicated to M/WBEs. The Census Bureau's *Survey of Business Owners and Self-Employed Persons* (SBO), formerly known as the *Survey of Minority- and Women-Owned Business Enterprises* (SMWOBE), collects and disseminates data on the number, sales, employment, and payrolls of businesses owned by women and members of racial and ethnic minority groups. This survey has been conducted every five years since 1972 as part of the *Economic Censuses* program. Data from the 2002 SBO were just released in 2007.

The SBO estimates are created by matching data collected from income tax returns by the Internal Revenue Service with Social Security Administration data on race and ethnicity, and supplementing this information using statistical sampling methods. The unique field for conducting this matching is the Social Security Number (SSN) or the Employer Identification Number (EIN), as reported on the tax return.¹⁹²

The SBO covers women and five groups of minorities—(1) African-Americans, (2) Hispanics, (3) Asians, (4) Native Hawaiians and Pacific Islanders, and (5) American Indians and Alaskan

¹⁹¹ The disparity indices for Asians and for persons reporting multiple races are, however, higher than 80.0 percent in two of the three panels of Table 5.21.

¹⁹² Prior to 2002, "C" corporations were not included in the SMWOBE universe due to technical difficulties. This has been rectified in the 2002 SBO. For more information, consult the discussion of SBO survey methodology at <http://www.census.gov/econ/sbo/>.

Natives. The 2002 SBO also includes comparative information for non-minority-owned, non-women-owned firms.¹⁹³

The SBO provides aggregate estimates of the number of minority-owned and women-owned firms and their annual sales and receipts. The SBO distinguishes employer firms from nonemployer firms, and for the former also includes estimates of aggregate annual employment and payroll.

Although compared to the ACS PUMS or the CPS the SBO is more limited in the scope of industrial and geographic detail it provides, it nonetheless contains a wealth of information on the character of minority and female business enterprise in the U.S as a whole as well as in the New York State market area. In the remainder of this section we present 2002 SBO statistics for the United States as a whole and the New York State market area and calculate disparity indices from them. We find that results in the SBO regarding disparities are consistent with our findings above using the ACS PUMS and the CPS.

Tables 5.22 and 5.23 contain data for all industries combined. Table 5.22 is for the U.S. as a whole, Table 5.23 is for the states of New York, New Jersey, and Connecticut combined.¹⁹⁴ Panel A in these three tables summarizes the 2002 SBO results for each grouping. Panel A of Table 5.22, for example, shows that there were 22.48 million firms in the U.S. in 2002 (column 1) with overall sales and receipts of \$8.784 trillion (column 2). Of these 22.48 million firms, 5.17 million had one or more employees (column 3) and these 5.17 million firms had overall sales and receipts of \$8.039 trillion (column 4). Column (5) shows a total of 55.37 million employees on the payroll of these 5.17 million firms and a total annual payroll expense of \$1.627 trillion (column 6).

The remaining rows in Panel A provide comparable statistics for women-owned and minority-owned firms. For example, Table 5.22 shows that there were 1.2 million African-American-owned firms counted in 2002, and that these 1.2 million firms registered \$88.6 billion in sales and receipts. It also shows that 94,518 of these African-American-owned firms had one or more employees, and that they employed a total of 753,978 workers in 2002 with an annual payroll total of \$17.55 billion.

Panel A of Table 5.23 provides comparable information for NY-NJ-CT combined. In 2002 the Census Bureau counted 772,392 female-owned firms in these three states,¹⁹⁵ 175,918 African-American-owned firms, 222,837 Hispanic-owned firms, 207,855 Asian- or Pacific Islander-owned firms, and 14,979 Native American-owned firms.

¹⁹³ In the ACS PUMS and CPS data, discussed above, the unit of analysis is the business owner, or self-employed person. In the SBO data the unit of analysis is the business rather than the business owner. Furthermore, unlike most other business statistics, including the other components of the *Economic Censuses*, the unit of analysis in the SBO is the firm, rather than the establishment.

¹⁹⁴ It is not possible with the SBO data to exactly replicate the NYSMA. The NY-NJ-CT numbers presented in this section therefore also include portions of New Jersey and Connecticut that are not part of the New York-Northern New Jersey-Long Island CMSA, nor do they include Pike County, PA which is also in the CMSA.

¹⁹⁵ Additionally 221,457 equally male/female-owned firms were counted.

Panel B in each Table converts the figures in Panel A to percentage distributions within each column. For example, Column (1) in Panel B of Table 5.23 shows that African-American-owned firms were 6.65 percent of all firms in these three states in 2002, and that female-owned firms were 29.19 percent of all firms in these states. Additionally, 8.42 percent of firms were Hispanic-owned, 7.86 percent were Asian- or Pacific Islander-owned and 0.57 percent were Native American-owned.

Column (2) in Panel B provides the same percentage distribution for overall sales and receipts. Table 5.23, for example, shows that although African-American-owned firms were 6.65 percent of all firms in these three states, they accounted for only 1.02 percent of all sales and receipts. Similar results are obtained when the sample is restricted to firms with one or more paid employees. Column (3) in Table 5.23 shows that African-American-owned employer firms accounted for 1.87 percent of all firms but only 0.79 percent of all sales and receipts. Large disparities in NY-NJ-CT are observed not only for African-Americans, but also for female-owned firms, Hispanic-owned firms, Asian-owned firms, and Native American-owned firms.

The disparity indices are presented in Panel C of each Table. Disparity indices of 80 percent or less indicate disparate impact consistent with business discrimination against minority-owned and female-owned firms (0 percent being complete disparity and 100 percent being full parity). In NY-NJ-CT, these disparity indices fall beneath the 80 percent threshold in every single case.

Tables 5.25 shows comparable SBO data for Construction and CRS (NAICS 23 and 54) in NY-NJ-CT, while Table 5.27 shows data for Goods and Services (balance of NAICS codes). Disparity indices in NY-NJ-CT are again large and statistically significant in every single case.

Tables

Table 5.1. Annual Wage Earnings Regressions, All Industries, 2006–2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.326 (172)	-0.331 (166.91)	-0.331 (167.57)
Hispanic	-0.226 (122.21)	-0.225 (115.94)	-0.225 (122.16)
Asian	-0.265 (109.99)	-0.267 (102.72)	-0.267 (103.11)
Native American	-0.309 (47.71)	-0.308 (46.79)	-0.309 (47.74)
Other Race	-0.262 (62.75)	-0.263 (60.2)	-0.262 (62.75)
Non-minority Female	-0.325 (293.55)	-0.325 (281.73)	-0.325 (293.5)
Age	0.182 (572.57)	0.182 (572.56)	0.182 (572.57)
Age ²	-0.002 (498.77)	-0.002 (498.76)	-0.002 (498.77)
NYSMA	0.175 (33.39)	0.170 (29.25)	0.166 (31.38)
NYSMA*African-American		0.076 (9.61)	0.079 (10.51)
NYSMA*Hispanic		-0.012 (1.79)	
NYSMA* Asian/Pacific Islanders		0.018 (2.26)	0.021 (2.81)
NYSMA* Native American		-0.049 (1.11)	
NYSMA*Other Race		0.007 (.42)	
NYSMA*non-minority Female		-0.005 (1.07)	
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	2548959	2548959	2548959
R ²	.4591	.4591	.4591

Source: NERA calculations from the 2006-2008 ACS Public Use Microdata Samples.

Notes: (1) Universe is all private sector wage and salary workers between age 16 and 64; observations with imputed values to the dependent variable and all independent variables are excluded; (2) Reported number is the percentage difference in annual wages between a given group and non-minority men; (3) Number in parentheses is the absolute value of the associated t-statistic. Using a two-tailed test, t-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (4) “Other Race” includes persons identifying themselves as belonging in more than one racial category; (5) Geography is defined based on place of residence; (6) “NYSMA” is shorthand for “New York State Market Area,” which is the State of New York, plus the balance of the New York-Northern New Jersey-Long Island, NY-NJ-CT CMSA.

Table 5.2. Annual Wage Earnings Regressions, All Industries, 1980-1991

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.302 (82.25)	-0.306 (77.72)	-0.306 (77.72)
Hispanic	-0.204 (57.67)	-0.201 (52.96)	-0.201 (52.95)
Other Race	-0.127 (15.62)	-0.128 (14.75)	-0.126 (15.58)
Non-minority Female	-0.283 (127.02)	-0.286 (122.45)	-0.286 (122.46)
Age	0.099 (150.3)	0.099 (150.32)	0.099 (150.33)
Age ²	-0.001 (124.43)	-0.001 (124.46)	-0.001 (124.47)
NYSMA		0.046 (4.8)	0.046 (4.84)
NYSMA*African-American		0.049 (3.97)	0.048 (3.94)
NYSMA*Hispanic		-0.035 (3.53)	-0.036 (3.58)
NYSMA*Other Race		0.019 (.73)	
NYSMA*non-minority Female		0.037 (4.71)	0.037 (4.71)
Time (13 categories)	Yes	Yes	Yes
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	689172	689172	689172
R ²	.6349	.6349	.6349

Source: NERA calculations from the Annual Demographic File of the 1980-1991 Current Population Survey microdata samples.

Notes: (1) Universe is all private sector wage and salary workers between age 16 and 64; (2) Reported number is the percentage difference in annual wages between a given group and non-minority men; (3) Number in parentheses is the absolute value of the associated t-statistic. Using a two-tailed test, t-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (4) "Other Race" includes Asian/Pacific Islanders and American Indians/Alaska Natives; (5) Geography is defined based on place of residence.

Table 5.3. Annual Wage Earnings Regressions, All Industries, 1992-2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.280 (94.01)	-0.282 (89.46)	-0.282 (89.75)
Hispanic	-0.197 (70.61)	-0.196 (65.85)	-0.197 (70.26)
Asian	-0.217 (48.93)	-0.219 (45.54)	-0.220 (45.73)
Native American	-0.234 (27.82)	-0.233 (27.16)	-0.235 (27.93)
Non-minority Female	-0.217 (104.91)	-0.220 (102.48)	-0.220 (103.1)
Age	0.095 (165.2)	0.095 (165.23)	0.095 (165.23)
Age ²	-0.001 (139.37)	-0.001 (139.38)	-0.001 (139.38)
NYSMA	0.027 (3.09)	0.009 (.98)	0.006 (.66)
NYSMA*African-American		0.026 (2.42)	0.030 (2.86)
NYSMA*Hispanic		-0.011 (1.32)	
NYSMA*Asian		0.029 (2.09)	0.032 (2.42)
NYSMA*Native American		-0.057 (1.19)	
NYSMA*non-minority Female		0.045 (5.97)	0.049 (7)
Time (11 categories)	Yes	Yes	Yes
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	1054627	1054627	1054627
R ²	.5953	.5954	.5954

Source: NERA calculations from the Annual Demographic File of the 1992-2008 Current Population Survey microdata samples.

Notes: (1) Universe is all private sector wage and salary workers between age 16 and 64; (2) Reported number is the percentage difference in annual wages between a given group and non-minority men; (3) Number in parentheses is the absolute value of the associated t-statistic. Using a two-tailed test, t-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (4) "Other Race" includes Asian/Pacific Islanders and American Indians/Alaska Natives; (5) Geography is defined based on place of residence; (6) "NYSMA" is shorthand for "New York State Market Area," which is the State of New York, plus the balance of the New York-Northern New Jersey-Long Island, NY-NJ-CT CMSA.

Table 5.4. Annual Wage Earnings Regressions, Construction and Related Industries, 2006–2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.351 (44.24)	-0.355 (42.76)	-0.355 (42.82)
Hispanic	-0.196 (36.76)	-0.192 (34.92)	-0.192 (35.03)
Asian	-0.220 (19.43)	-0.203 (16.55)	-0.204 (16.57)
Native American	-0.309 (17.16)	-0.313 (17.22)	-0.314 (17.24)
Other Race	-0.226 (15.82)	-0.227 (15.31)	-0.225 (15.77)
Non-minority Female	-0.360 (81.42)	-0.358 (78.03)	-0.360 (81.39)
Age	0.149 (139.46)	0.149 (139.48)	0.149 (139.48)
Age ²	-0.001 (119.49)	-0.001 (119.5)	-0.001 (119.51)
NYSMA	0.187 (11.04)	0.200 (11.29)	0.194 (11.2)
NYSMA*African-American		0.071 (2.05)	0.076 (2.21)
NYSMA*Hispanic		-0.053 (2.6)	-0.049 (2.39)
NYSMA* Asian/Pacific Islanders		-0.138 (4.08)	-0.134 (3.96)
NYSMA* Native American		0.330 (2.01)	0.337 (2.04)
NYSMA*Other Race		0.035 (.56)	
NYSMA*non-minority Female		-0.038 (1.84)	
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	221546	221546	221546
R ²	.2758	.2759	.2758

Source and Notes: See Table 5.1.

Table 5.5. Annual Wage Earnings Regressions, Construction and Related Industries, 1980-1991

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.352 (21.84)	-0.358 (21)	-0.352 (21.84)
Hispanic	-0.158 (12.25)	-0.155 (11.56)	-0.158 (12.25)
Other Race	-0.128 (3.83)	-0.120 (3.37)	-0.128 (3.83)
Non-minority Female	-0.302 (25.15)	-0.303 (24.11)	-0.302 (25.15)
Age	0.122 (48.55)	0.122 (48.56)	0.122 (48.55)
Age ²	-0.001 (40.02)	-0.001 (40.03)	-0.001 (40.02)
NYSMA		0.041 (1.25)	0.045 (1.4)
NYSMA*African-American		0.110 (1.74)	
NYSMA*Hispanic		-0.048 (1.1)	
NYSMA*Other Race		-0.113 (1.53)	
NYSMA*non-minority Female		0.013 (.27)	
Time (13 categories)	Yes	Yes	Yes
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	49976	49976	49976
R ²	.5524	.5525	.5524

Source: See Table 5.2.

Table 5.6. Annual Wage Earnings Regressions, Construction and Related Industries, 1992-2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.242 (18.54)	-0.244 (17.66)	-0.242 (18.54)
Hispanic	-0.167 (19.36)	-0.166 (18.39)	-0.167 (19.36)
Asian	-0.183 (9.17)	-0.176 (8.27)	-0.183 (9.17)
Native American	-0.156 (6.79)	-0.159 (6.84)	-0.156 (6.79)
Non-minority Female	-0.207 (20.51)	-0.206 (19.7)	-0.207 (20.51)
Age	0.098 (48.99)	0.098 (49)	0.098 (48.99)
Age ²	-0.001 (40.85)	-0.001 (40.85)	-0.001 (40.85)
NYSMA	-0.037 (1.27)	-0.035 (1.18)	-0.037 (1.27)
NYSMA*African-American		0.034 (.71)	
NYSMA*Hispanic		-0.010 (.39)	
NYSMA*Asian		-0.057 (.89)	
NYSMA*Native American		0.137 (.7)	
NYSMA*non-minority Female		-0.007 (.17)	
Time (11 categories)	Yes	Yes	Yes
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	83316	83316	83316
R ²	.4948	.4948	.4948

Source: See Table 5.3.

Table 5.7. Annual Business Owner Earnings Regressions, All Industries, 2006–2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.400 (32.12)	-0.406 (31.23)	-0.401 (32.13)
Hispanic	-0.231 (20.75)	-0.224 (19.28)	-0.224 (19.27)
Asian	-0.094 (5.82)	-0.090 (5.18)	-0.093 (5.78)
Native American	-0.358 (10.17)	-0.366 (10.32)	-0.358 (10.18)
Other Race	-0.363 (16.2)	-0.369 (15.93)	-0.363 (16.2)
Non-minority Female	-0.407 (67.4)	-0.409 (65.61)	-0.409 (65.7)
Age	0.163 (79.16)	0.163 (79.18)	0.163 (79.18)
Age ²	-0.002 (69.65)	-0.002 (69.66)	-0.002 (69.66)
NYSMA	0.121 (4.02)	0.105 (3.32)	0.115 (3.68)
NYSMA*African-American		0.102 (1.78)	
NYSMA*Hispanic		-0.091 (2.33)	-0.098 (2.56)
NYSMA* Asian/Pacific Islanders		-0.027 (.56)	
NYSMA* Native American		0.601 (1.64)	
NYSMA*Other Race		0.149 (1.34)	
NYSMA*non-minority Female		0.053 (2.09)	0.045 (1.83)
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	284365	284365	284365
R ²	.1676	.1677	.1676

Source: NERA calculations from the 2006-2008 ACS Public Use Microdata Samples.

Notes: (1) Universe is all persons in the private sector with positive business earnings between age 16 and 64; observations with imputed values to the dependent variable and all independent variables are excluded; (2) Reported number is the percentage difference in annual business earnings between a given group and non-minority men; (3) Number in parentheses is the absolute value of the associated t-statistic. Using a two-tailed test, t-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (4) “Other Race” includes persons identifying themselves as belonging in more than one racial category; (5) Geography is defined based on place of residence; (6) “NYSMA” is shorthand for “New York State Market Area,” which is the State of New York, plus the balance of the New York-Northern New Jersey-Long Island, NY-NJ-CT CMSA.

Table 5.8. Annual Business Owner Earnings Regressions, All Industries, 1980-1991

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.336 (15.34)	-0.346 (14.63)	-0.336 (15.34)
Hispanic	-0.199 (13.03)	-0.202 (12.51)	-0.199 (13.03)
Other Race	-0.090 (3.05)	-0.079 (2.45)	-0.090 (3.05)
Non-minority Female	-0.457 (48.63)	-0.458 (46.79)	-0.457 (48.63)
Age	0.101 (32.83)	0.101 (32.82)	0.101 (32.83)
Age ²	-0.001 (29.46)	-0.001 (29.46)	-0.001 (29.46)
NYSMA	0.031 (.81)	0.023 (.59)	0.031 (.81)
NYSMA*African-American		0.126 (1.69)	
NYSMA*Hispanic		0.042 (.85)	
NYSMA*Other Race		-0.108 (1.46)	
NYSMA*non-minority Female		0.014 (.38)	
Time (13 categories)	Yes	Yes	Yes
Education (continuous)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (49 categories)	Yes	Yes	Yes
N	74895	74895	74895
R ²	.5172	.5172	.5172

Source: NERA calculations from the Annual Demographic File of the 1980-1991 Current Population Survey microdata samples.

Notes: (1) Universe is all private sector incorporated and unincorporated self-employed with positive business earnings between age 16 and 64; (2) Reported number is the percentage difference in annual business earnings between a given group and non-minority men; (3) Number in parentheses is the absolute value of the associated t-statistic. Using a two-tailed test, t-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (4) "Other Race" includes Asian/Pacific Islanders and American Indians/Alaska Natives; (5) Geography is defined based on place of residence; (6) "NYSMA" is shorthand for "New York State Market Area," which is the State of New York, plus the balance of the New York-Northern New Jersey-Long Island, NY-NJ-CT CMSA.

Table 5.9. Annual Business Owner Earnings Regressions, All Industries, 1992-2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.280 (16.32)	-0.274 (15.09)	-0.280 (16.32)
Hispanic	-0.248 (19.21)	-0.243 (17.88)	-0.248 (19.21)
Asian	-0.214 (12.8)	-0.210 (11.56)	-0.214 (12.8)
Native American	-0.282 (8.14)	-0.277 (7.9)	-0.282 (8.14)
Non-minority Female	-0.378 (43.13)	-0.378 (41.66)	-0.378 (43.13)
Age	0.097 (30.48)	0.097 (30.48)	0.097 (30.48)
Age ²	-0.001 (28.47)	-0.001 (28.47)	-0.001 (28.47)
NYSMA	0.052 (1.25)	0.060 (1.41)	0.052 (1.25)
NYSMA*African-American		-0.080 (1.29)	
NYSMA*Hispanic		-0.057 (1.32)	
NYSMA*Asian		-0.032 (.67)	
NYSMA*Native American		-0.165 (.69)	
NYSMA*non-minority Female		0.005 (.15)	
Time (11 categories)	Yes	Yes	Yes
Education (continuous)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (49 categories)	Yes	Yes	Yes
N	115869	115869	115869
R ²	.3823	.3824	.3824

Source: NERA calculations from the Annual Demographic File of the 1992-2002 Current Population Survey microdata samples.

Notes: (1) Universe is all private sector incorporated and unincorporated self-employed with positive business earnings between age 16 and 64; (2) Reported number is the percentage difference in annual business earnings between a given group and non-minority men; (3) Number in parentheses is the absolute value of the associated t-statistic. Using a two-tailed test, t-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (4) "Other Race" includes Asian/Pacific Islanders and American Indians/Alaska Natives; (5) Geography is defined based on place of residence; (6) "NYSMA" is shorthand for "New York State Market Area," which is the State of New York, plus the balance of the New York-Northern New Jersey-Long Island, NY-NJ-CT CMSA.

Table 5.10. Business Owner Earnings Regressions, Construction and Related Industries, 2006–2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.434 (14.11)	-0.437 (13.7)	-0.434 (14.11)
Hispanic	-0.159 (6.95)	-0.144 (6.03)	-0.143 (6.02)
Asian/Pacific Islanders	-0.177 (3.61)	-0.135 (2.54)	-0.135 (2.53)
Native American	-0.312 (4.48)	-0.316 (4.51)	-0.311 (4.46)
Other Race	-0.279 (5.39)	-0.285 (5.36)	-0.278 (5.37)
Non-minority Female	-0.458 (22.9)	-0.457 (22.06)	-0.458 (22.89)
Age	0.126 (27.47)	0.126 (27.47)	0.126 (27.48)
Age ²	-0.001 (24.73)	-0.001 (24.74)	-0.001 (24.74)
NYSMA	0.025 (.43)	0.051 (.86)	0.054 (.93)
NYSMA*African-American		0.090 (.58)	
NYSMA*Hispanic		-0.224 (2.78)	
NYSMA* Asian/Pacific Islanders		-0.336 (2.46)	
NYSMA* Native American		0.498 (.64)	
NYSMA*Other Race		0.172 (.62)	
NYSMA*non-minority Female		-0.029 (.28)	
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (88 categories)	Yes	Yes	Yes
N	47414	47414	47414
R ²	.0529	.0532	.0531

Source and Notes: See Table 5.7.

Table 5.11. Business Owner Earnings Regressions, Construction and Related Industries, 1980-1991

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.396 (8.73)	-0.406 (8.51)	-0.396 (8.73)
Hispanic	-0.161 (4.63)	-0.150 (4.07)	-0.161 (4.63)
Other Race	-0.005 (.08)	0.015 (.22)	-0.005 (.08)
Non-minority Female	-0.381 (9.14)	-0.389 (9.01)	-0.381 (9.14)
Age	0.106 (15.86)	0.106 (15.87)	0.106 (15.86)
Age ²	-0.001 (14.27)	-0.001 (14.28)	-0.001 (14.27)
NYSMA		0.179 (1.79)	0.178 (1.78)
NYSMA*African-American		0.165 (.84)	
NYSMA*Hispanic		-0.142 (1.4)	
NYSMA*Other Race		-0.312 (.84)	
NYSMA*non-minority Female		0.238 (1.2)	
Time (13 categories)	Yes	Yes	Yes
Education (continuous)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (49 categories)	Yes	Yes	Yes
N	13171	13171	13171
R ²	.3324	.3327	.3324

Source and Notes: See Table 5.8.

Table 5.12. Business Owner Earnings Regressions, Construction and Related Industries, 1992-2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.233 (5.57)	-0.201 (4.68)	-0.201 (4.69)
Hispanic	-0.159 (6.06)	-0.155 (5.56)	-0.160 (6.07)
Asian	-0.130 (2.24)	-0.138 (2.29)	-0.131 (2.26)
Native American	-0.128 (1.9)	-0.129 (1.89)	-0.128 (1.89)
Non-minority Female	-0.224 (6.99)	-0.224 (6.87)	-0.224 (6.99)
Age	0.073 (11.29)	0.073 (11.26)	0.073 (11.28)
Age ²	-0.001 (10.23)	-0.001 (10.2)	-0.001 (10.21)
NYSMA	-0.022 (.33)	-0.007 (.11)	-0.010 (.16)
NYSMA*African-American		-0.374 (2.23)	-0.372 (2.22)
NYSMA*Hispanic		-0.051 (.65)	
NYSMA*Asian		0.077 (.35)	
NYSMA*Native American		0.053 (.11)	
NYSMA*non-minority Female		0.007 (.04)	
Time (11 categories)	Yes	Yes	Yes
Education (continuous)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (49 categories)	Yes	Yes	Yes
N	22992	22992	22992
R ²	.2524	.2529	.2529

Source and Notes: See Table 5.9.

Table 5.13. Self-Employment Rates in 2006–2008 for Selected Race and Sex Groups: United States and the New York State Market Area, All Industries

Race/Sex	U.S. (%)	New York State Market Area (%)	Percent Difference from Non-minority male (NYSMA)
African-American	5.38	5.42	-63.8%
Hispanic	8.65	7.93	-47.1%
Asian	10.58	10.88	-27.4%
Native American	8.65	9.05	-39.6%
Multiple Races	8.96	9.14	-39.0%
MBE	7.95	7.94	-47.0%
Non-minority female	8.76	8.51	-43.2%
M/WBE	8.38	8.21	-45.2%
Non-minority male	14.22	14.98	

Source: NERA calculations from the 2006-2008 ACS Public Use Microdata Samples.

Table 5.14. Self-Employment Rates in 2006–2008 for Selected Race and Sex Groups: United States and the New York State Market Area, Construction and CRS Sectors and Goods and Services Sectors

Race/Sex	U.S. (%)	New York State Market Area (%)	Percent Difference from Non-minority male (NYSMA)
<i>Construction and CRS Sectors</i>			
African-American	16.61	16.31	-40.4%
Hispanic	14.60	15.50	-43.4%
Asian	17.68	17.88	-34.7%
Native American	18.06	27.57	0.7%
Multiple Races	18.93	15.86	-42.1%
MBE	15.40	16.12	-41.1%
Non-minority female	15.34	13.86	-49.4%
M/WBE	15.39	15.58	-43.1%
Non-minority male	26.17	27.37	
<i>Goods and Services Sectors</i>			
African-American	4.81	4.89	-62.2%
Hispanic	7.65	7.18	-44.6%
Asian	10.26	10.56	-18.5%
Native American	7.37	7.07	-45.4%
Multiple Races	8.01	8.49	-34.4%
MBE	7.17	7.35	-43.2%
Non-minority female	8.56	8.38	-35.3%
M/WBE	7.93	7.85	-39.4%
Non-minority male	11.99	12.95	

Source: NERA calculations from the 2006-2008 ACS Public Use Microdata Samples.

Table 5.15. Business Formation Regressions, All Industries, 2006–2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.042 (74.46)	-0.042 (70.12)	-0.042 (70.23)
Hispanic	-0.032 (65)	-0.032 (61.74)	-0.032 (65.08)
Asian/Pacific Islanders	-0.019 (27.32)	-0.019 (26.25)	-0.019 (26.39)
Native American	-0.027 (15.05)	-0.027 (14.56)	-0.027 (15)
Other Race	-0.020 (16.42)	-0.020 (15.36)	-0.020 (16.44)
Non-minority Female	-0.028 (80.33)	-0.028 (75.52)	-0.028 (75.81)
Age	0.010 (115.63)	0.010 (115.61)	0.010 (115.6)
Age ²	-0.000 (80.51)	-0.000 (80.49)	-0.000 (80.48)
NYSMA	-0.004 (3.09)	-0.002 (1.05)	-0.002 (1.51)
NYSMA*African-American		-0.007 (2.74)	-0.006 (2.49)
NYSMA*Hispanic		-0.003 (1.75)	
NYSMA* Asian/Pacific Islanders		0.004 (2.02)	0.005 (2.37)
NYSMA* Native American		-0.016 (1.31)	
NYSMA*Other Race		-0.006 (1.33)	
NYSMA*non-minority Female		-0.007 (6.2)	-0.006 (5.84)
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (25 categories)	Yes	Yes	Yes
N	2695435	2695435	2695435
Pseudo R ²	.2194	.2195	.2195

Source: NERA calculations from the 2006-2008 ACS Public Use Microdata Samples.

Notes: (1) Universe is all private sector labor force participants between age 16 and 64; observations with imputed values to the dependent variable and all independent variables are excluded; (2) Reported number represents the percentage point probability difference in business ownership rates between a given group and non-minority men, evaluated at the mean business ownership rate for the estimation sample; (3) Number in parentheses is the absolute value of the associated z-statistic. Using a two-tailed test, z-statistics greater than 1.67 (1.99) are statistically significant at a 90 (95) (99) percent confidence level; (4) “Other Race” includes persons identifying themselves as belonging in more than one racial category; (5) Geography is defined based on place of residence; (6) “NYSMA” is shorthand for “New York State Market Area,” which is the State of New York, plus the balance of the New York-Northern New Jersey-Long Island, NY-NJ-CT CMSA.

Table 5.16. Business Formation Regressions, All Industries, 1980-1991

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.037 (50.59)	-0.037 (47.22)	-0.037 (50.66)
Hispanic	-0.022 (31.38)	-0.021 (27.65)	-0.021 (27.73)
Other Race	-0.003 (1.77)	-0.002 (1.13)	-0.003 (1.8)
Non-minority Female	-0.033 (62.15)	-0.032 (57.79)	-0.032 (57.91)
Age	0.012 (91.02)	0.012 (91.04)	0.012 (91.03)
Age ²	-0.000 (71.55)	-0.000 (71.58)	-0.000 (71.58)
NYSMA		0.015 (6.09)	0.014 (5.96)
NYSMA*African-American		-0.002 (.74)	
NYSMA*Hispanic		-0.016 (7.22)	-0.016 (7.1)
NYSMA*Other Race		-0.009 (1.75)	
NYSMA*non-minority Female		-0.011 (7.47)	-0.011 (7.42)
Time (6 categories)	Yes	Yes	Yes
Education (continuous)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (49 categories)	Yes	Yes	Yes
N	770337	770377	770377
Pseudo R ²	.2530	.2532	.2532

Source: NERA calculations from the Merged Outgoing Rotation Groups of the 1980-1991 Current Population Survey microdata samples.

Notes: (1) Universe is all private sector labor force participants between age 16 and 64; (2) Reported number represents the percentage point probability difference in business ownership rates between a given group and non-minority men, evaluated at the mean business ownership rate for the estimation sample; (3) Number in parentheses is the absolute value of the associated z-statistic. Using a two-tailed test, z-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (4) "Other Race" includes Asian/Pacific Islanders and American Indians/Alaska Natives; (5) Geography is defined based on place of residence; (6) "NYSMA" is shorthand for "New York State Market Area," which is the State of New York, plus the balance of the New York-Northern New Jersey-Long Island, NY-NJ-CT CMSA.

Table 5.17. Business Formation Regressions, All Industries, 1992-2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.036 (48.26)	-0.036 (44.86)	-0.036 (48.32)
Hispanic	-0.028 (41.23)	-0.027 (38.19)	-0.028 (38.41)
Asian	-0.010 (9.23)	-0.010 (8.27)	-0.010 (9.37)
Native American	-0.021 (10.95)	-0.021 (10.81)	-0.021 (10.86)
Non-minority Female	-0.025 (46.27)	-0.024 (42.94)	-0.024 (43.28)
Age	0.012 (85.75)	0.012 (85.73)	0.012 (85.74)
Age ²	-0.000 (64.31)	-0.000 (64.29)	-0.000 (64.3)
NYSMA	0.003 (1.3)	0.007 (2.94)	0.006 (2.62)
NYSMA*African-American		-0.005 (1.85)	
NYSMA*Hispanic		-0.005 (2.46)	-0.005 (2.07)
NYSMA*Asian		-0.003 (1.1)	
NYSMA*Native American		0.010 (.77)	
NYSMA*non-minority Female		-0.010 (5.79)	-0.009 (5.47)
Time (11 categories)	Yes	Yes	Yes
Education (continuous)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (49 categories)	Yes	Yes	Yes
N	1177892	1177887	1177887
Pseudo R ²	.2089	.2090	.2089

Source: NERA calculations from the Merged Outgoing Rotation Groups of the 1992-2002 Current Population.

Notes: (1) Universe is all private sector labor force participants between age 16 and 64; (2) Reported number represents the percentage point probability difference in business ownership rates between a given group and non-minority men, evaluated at the mean business ownership rate for the estimation sample; (3) Number in parentheses is the absolute value of the associated z-statistic. Using a two-tailed test, z-statistics greater than 1.67 (1.99) (2.64) are statistically significant at a 90 (95) (99) percent confidence level; (4) "Other Race" includes Asian/Pacific Islanders and American Indians/Alaska Natives; (5) Geography is defined based on place of residence; (6) "NYSMA" is shorthand for "New York State Market Area," which is the State of New York, plus the balance of the New York-Northern New Jersey-Long Island, NY-NJ-CT CMSA.

Table 5.18a. Business Formation Regressions, Construction and Related Industries, 2006–2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.092 (21.7)	-0.091 (20.27)	-0.092 (21.7)
Hispanic	-0.078 (28.06)	-0.078 (27.24)	-0.078 (28.05)
Asian/Pacific Islanders	-0.063 (10.31)	-0.062 (9.45)	-0.063 (10.33)
Native American	-0.079 (8.28)	-0.079 (8.18)	-0.079 (8.27)
Other Race	-0.041 (5.48)	-0.041 (5.19)	-0.041 (5.48)
Non-minority Female	-0.096 (37.27)	-0.095 (35.44)	-0.095 (35.5)
Age	0.025 (46.74)	0.025 (46.73)	0.025 (46.73)
Age ²	-0.000 (32.48)	-0.000 (32.47)	-0.000 (32.47)
NYSMA	-0.011 (1.52)	-0.008 (1.09)	-0.009 (1.24)
NYSMA*African-American		-0.024 (1.46)	
NYSMA*Hispanic		0.005 (.44)	
NYSMA* Asian/Pacific Islanders		-0.007 (.37)	
NYSMA* Native American		0.007 (.1)	
NYSMA*Other Race		-0.009 (.31)	
NYSMA*non-minority Female		-0.024 (2.14)	-0.023 (2.09)
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (25 categories)	Yes	Yes	Yes
N	259606	259606	259606
Pseudo R ²	.0813	.0813	.0813

Source and Notes: See Table 5.15.

Table 5.18b. Business Formation Regressions, Goods and Services Industries, 2006–2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.053 (78.18)	-0.052 (73.81)	-0.053 (78.21)
Hispanic	-0.031 (47.08)	-0.031 (45.36)	-0.031 (47.22)
Asian/Pacific Islanders	-0.027 (33.84)	-0.028 (33.13)	-0.028 (33.18)
Native American	-0.028 (12.02)	-0.028 (11.61)	-0.028 (11.97)
Other Race	-0.022 (14.59)	-0.022 (13.95)	-0.022 (14.63)
Non-minority Female	-0.027 (68.08)	-0.026 (63.41)	-0.026 (63.76)
Age	0.010 (92.1)	0.010 (92.09)	0.010 (92.09)
Age ²	-0.000 (61.62)	-0.000 (61.6)	-0.000 (61.6)
NYSMA	0.003 (1.84)	0.005 (2.95)	0.005 (2.95)
NYSMA*African-American		-0.005 (1.88)	
NYSMA*Hispanic		0.003 (1.21)	
NYSMA* Asian/Pacific Islanders		0.011 (4.13)	0.011 (4.26)
NYSMA* Native American		-0.019 (1.22)	
NYSMA*Other Race		-0.001 (.2)	
NYSMA*non-minority Female		-0.008 (5.73)	-0.008 (5.98)
Education (16 categories)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (25 categories)	Yes	Yes	Yes
N	3721681	3721681	3721681
Pseudo R ²	.0738	.0738	.0738

Source: See Table 5.15.

Table 5.19. Business Formation Regressions, Construction and Related Industries, 1980-1991

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.122 (16.92)	-0.125 (16.43)	-0.122 (16.92)
Hispanic	-0.074 (12.19)	-0.076 (12.18)	-0.076 (12.15)
Other Race	-0.079 (5.11)	-0.075 (4.66)	-0.079 (5.12)
Non-minority Female	-0.121 (21.32)	-0.119 (19.94)	-0.118 (19.9)
Age	0.037 (36.27)	0.037 (36.25)	0.037 (36.24)
Age ²	-0.000 (28.99)	-0.000 (28.97)	-0.000 (28.96)
NYSMA	0.055 (3.2)	0.056 (3.2)	0.058 (3.3)
NYSMA*African-American		0.058 (1.83)	
NYSMA*Hispanic		0.054 (2.07)	0.050 (1.96)
NYSMA*Other Race		-0.072 (1.23)	
NYSMA*non-minority Female		-0.059 (2.44)	-0.062 (2.55)
Time (6 categories)	Yes	Yes	Yes
Education (continuous)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (49 categories)	Yes	Yes	Yes
N	63877	63877	63877
Pseudo R ²	.1078	.1078	.1078

Source: See Table 5.16.

Table 5.20. Business Formation Regressions, Construction and Related Industries, 1992-2008

Independent Variables	Specification		
	(1)	(2)	(3)
African-American	-0.099 (16.24)	-0.098 (15.08)	-0.099 (16.24)
Hispanic	-0.086 (19.56)	-0.087 (18.97)	-0.086 (19.56)
Asian	-0.042 (3.99)	-0.038 (3.3)	-0.042 (4)
Native American	-0.060 (4.96)	-0.060 (4.95)	-0.060 (4.95)
Non-minority Female	-0.087 (18.62)	-0.085 (17.48)	-0.085 (17.5)
Age	0.032 (35.03)	0.032 (35.03)	0.032 (35.03)
Age ²	-0.000 (26.86)	-0.000 (26.85)	-0.000 (26.86)
NYSMA	0.019 (1.19)	0.022 (1.36)	0.022 (1.39)
NYSMA*African-American		-0.021 (.91)	
NYSMA*Hispanic		0.018 (1.18)	
NYSMA*Asian		-0.038 (1.27)	
NYSMA*Native American		0.039 (.47)	
NYSMA*non-minority Female		-0.040 (2.12)	-0.040 (2.14)
Time (11 categories)	Yes	Yes	Yes
Education (continuous)	Yes	Yes	Yes
Geography (51 categories)	Yes	Yes	Yes
Industry (49 categories)	Yes	Yes	Yes
N	107440	107440	107440
Pseudo R ²	.0955	.0956	.0956

Source: See Table 5.17.

Table 5.21. Actual and Potential Business Formation Rates in the New York State Market Area

Race/Sex	Business Formation Rate (%)	Expected Business Formation Rate (%)	Disparity Index
<i>All Industries</i>	(1)	(2)	(3)
African-American	5.38	10.18	52.8
Hispanic	8.65	11.85	73.0
Asian	10.58	11.98	88.3
Native American	8.65	11.35	76.2
Multiple races reported	8.96	10.96	81.8
MBE	7.95	12.07	65.9
Non-minority female	8.76	12.16	72.0
All M/WBE	8.38	12.21	68.6
<i>Construction and CRS Sectors</i>	(1)	(2)	(3)
African-American	16.61	25.81	64.4
Hispanic	14.60	22.40	65.2
Asian	17.68	23.98	73.7
Native American	18.06	25.96	69.6
Multiple races reported	18.93	23.03	82.2
MBE	15.40	23.36	65.9
Non-minority female	15.34	27.14	56.5
All M/WBE	15.39	24.37	63.2
<i>Goods and Services Sectors</i>	(1)	(2)	(3)
African-American	4.81	10.11	47.6
Hispanic	7.65	10.75	71.2
Asian	10.26	11.96	85.8
Native American	7.37	10.17	72.5
Multiple races reported	8.01	10.21	78.5
MBE	7.17	10.16	70.6
Non-minority female	8.56	11.96	71.6
All M/WBE	7.93	11.21	70.7

Source: 2006–2008 ACS Public Use Microdata Sample. See Tables 5.15, 5.18a, 5.18b.

Notes: Figures in column (1) are average self-employment rates weighted using ACS population-based person weights. Figures in column (2), top, middle, and bottom panels, are derived by combining the figure in column (1) with the corresponding result from the regression reported in Table 5.15, 5.18a, or 5.18b, respectively. Column (3) is the figure in column (1) divided by the figure in column (2), with the result multiplied by 100.

Table 5.22. Disparity Indices from the 2002 Survey of Business Owners: United States, All Industries

	Number of Firms	Sales and Receipts (\$000s)	Employer Firms	Sales and Receipts (\$000s)	Employees	Payroll (\$000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
United States	22,480,256	8,783,541,146	5,172,064	8,039,252,709	55,368,216	1,626,785,430
Female	6,489,259	939,538,208	916,657	802,851,495	7,141,369	173,528,707
Equally male-/female-owned	2,693,360	731,678,703	717,961	627,202,424	5,664,948	129,700,997
African-American	1,197,567	88,641,608	94,518	65,799,425	753,978	17,550,064
Hispanic	1,573,464	221,927,425	199,542	179,507,959	1,536,795	36,711,718
Asian	1,103,587	326,663,445	319,468	291,162,771	2,213,948	56,044,960
Native Hawaiian/Pac. Islander	28,948	4,279,591	3,693	3,502,157	29,319	826,217
Am. Indian & Alaska Native	201,387	26,872,947	24,498	21,986,696	191,270	5,135,273
Panel B. Column Percentages						
United States	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Female	28.87%	10.70%	17.72%	9.99%	12.90%	10.67%
Equally male-/female-owned	11.98%	8.33%	13.88%	7.80%	10.23%	7.97%
African-American	5.33%	1.01%	1.83%	0.82%	1.36%	1.08%
Hispanic	7.00%	2.53%	3.86%	2.23%	2.78%	2.26%
Asian	4.91%	3.72%	6.18%	3.62%	4.00%	3.45%
Native Hawaiian/Pac. Islander	0.13%	0.05%	0.07%	0.04%	0.05%	0.05%
Am. Indian & Alaska Native	0.90%	0.31%	0.47%	0.27%	0.35%	0.32%
Panel C. Disparity Indices		(2) vs. (1)		(4) vs. (3)	(5) vs. (3)	(6) vs. (3)
Female		37.06%		56.35%	72.77%	60.19%
Equally male-/female-owned		69.53%		56.20%	73.71%	57.43%
African-American		18.94%		44.79%	74.52%	59.03%
Hispanic		36.10%		57.88%	71.94%	58.49%
Asian		75.76%		58.63%	64.74%	55.78%
Native Hawaiian/Pac. Islander		37.84%		61.01%	74.16%	71.13%
Am. Indian & Alaska Native		34.15%		57.74%	72.93%	66.64%

Source: NERA calculations using 2002 SBO. Excludes publicly-owned, foreign-owned, and not-for-profit firms.

Table 5.23. Disparity Indices from the 2002 Survey of Business Owners: NY-NJ-CT, All Industries

	Number of Firms	Sales and Receipts (\$000s)	Employer Firms	Sales and Receipts (\$000s)	Employees	Payroll (\$000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
NY-NJ-CT	2,646,103	1,120,717,062	637,978	1,024,999,389	6,021,013	209,811,385
Female	772,392	118,627,376	107,105	100,453,982	800,301	22,271,800
Equally male-/female-owned	221,457	70,819,438	60,612	60,615,278	433,275	12,267,131
African-American	175,918	11,406,561	11,960	8,124,778	75,368	2,086,049
Hispanic	222,837	20,847,769	22,340	16,361,643	119,367	3,253,326
Asian	204,235	50,766,422	54,157	44,865,846	262,626	7,594,662
Native Hawaiian/Pac. Islander	3,620	237,861	165	-	-	-
Am. Indian & Alaska Native	14,979	1,133,152	1,320	709,083	7,709	166,914
Panel B. Column Percentages						
NY-NJ-CT	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Female	29.19%	10.58%	16.79%	9.80%	13.29%	10.62%
Equally male-/female-owned	8.37%	6.32%	9.50%	5.91%	7.20%	5.85%
African-American	6.65%	1.02%	1.87%	0.79%	1.25%	0.99%
Hispanic	8.42%	1.86%	3.50%	1.60%	1.98%	1.55%
Asian	7.72%	4.53%	8.49%	4.38%	4.36%	3.62%
Native Hawaiian/Pac. Islander	0.14%	0.02%	0.03%	0.00%	0.00%	0.00%
Am. Indian & Alaska Native	0.57%	0.10%	0.21%	0.07%	0.13%	0.08%
Panel C. Disparity Indices						
Female		36.26%		58.38%	79.17%	63.23%
Equally male-/female-owned		75.50%		62.25%	75.74%	61.54%
African-American		15.31%		42.28%	66.77%	53.04%
Hispanic		22.09%		45.59%	56.62%	44.28%
Asian		58.69%		51.56%	51.38%	42.64%
Native Hawaiian/Pac. Islander		15.51%		0.00%	0.00%	0.00%
Am. Indian & Alaska Native		17.86%		33.44%	61.88%	38.45%

Source: See Table 5.22.

Table 5.24. Disparity Indices from the 2002 Survey of Business Owners: United States, Construction and CRS Industries

	Number of Firms	Sales and Receipts (\$000s)	Employer Firms	Sales and Receipts (\$000s)	Employees	Payroll (\$000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
United States	5,996,428	1,685,502,784	1,406,037	1,476,285,725	10,446,834	410,330,833
Female	1,136,584	147,556,354	185,072	119,542,082	1,028,439	37,265,214
Equally male-/female-owned	566,062	132,088,134	154,135	108,702,609	871,950	28,975,443
African-American	190,840	19,026,591	19,743	14,600,451	125,988	4,596,509
Hispanic	350,845	46,462,089	44,506	34,190,411	288,520	9,446,399
Asian	193,007	36,948,648	37,390	31,489,180	242,907	11,627,079
Native Hawaiian/Pac. Islander	6,092	1,173,615	321	172,732	1,351	53,364
Am. Indian & Alaska Native	54,758	8,145,166	8,103	6,435,409	46,650	1,712,542
Panel B. Column Percentages						
United States	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Female	18.95%	8.75%	13.16%	8.10%	9.84%	9.08%
Equally male-/female-owned	9.44%	7.84%	10.96%	7.36%	8.35%	7.06%
African-American	3.18%	1.13%	1.40%	0.99%	1.21%	1.12%
Hispanic	5.85%	2.76%	3.17%	2.32%	2.76%	2.30%
Asian	3.22%	2.19%	2.66%	2.13%	2.33%	2.83%
Native Hawaiian/Pac. Islander	0.10%	0.07%	0.02%	0.01%	0.01%	0.01%
Am. Indian & Alaska Native	0.91%	0.48%	0.58%	0.44%	0.45%	0.42%
Panel C. Disparity Indices						
Female		46.19%		61.52%	74.79%	69.00%
Equally male-/female-owned		83.02%		67.17%	76.14%	64.42%
African-American		35.47%		70.43%	85.89%	79.78%
Hispanic		47.11%		73.17%	87.25%	72.73%
Asian		68.11%		80.21%	87.44%	106.56%
Native Hawaiian/Pac. Islander		68.54%		51.25%	56.65%	56.96%
Am. Indian & Alaska Native		52.92%		75.64%	77.49%	72.42%

Source: See Table 5.22.

Table 5.25. Disparity Indices from the 2002 Survey of Business Owners: NY-NJ-CT, Construction and CRS Industries

	Number of Firms	Sales and Receipts (\$000s)	Employer Firms	Sales and Receipts (\$000s)	Employees	Payroll (\$000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
NY-NJ-CT	685,645	192,651,110	164,133	167,747,214	1,094,382	50,412,246
Female	143,599	20,078,809	22,117	16,135,530	114,869	4,880,953
Equally male-/female-owned	44,516	10,324,803	11,603	7,709,128	53,622	2,277,038
African-American	27,813	1,807,572	2,510	1,281,560	11,215	405,880
Hispanic	34,957	3,567,327	3,899	2,602,760	18,582	772,421
Asian	37,225	5,521,417	7,476	4,390,482	34,326	1,689,668
Native Hawaiian/Pac. Islander	33	-	17	-	-	-
Am. Indian & Alaska Native	3,810	274,718	479	119,119	766	34,345
Panel B. Column Percentages						
NY-NJ-CT	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Female	20.94%	10.42%	13.48%	9.62%	10.50%	9.68%
Equally male-/female-owned	6.49%	5.36%	7.07%	4.60%	4.90%	4.52%
African-American	4.06%	0.94%	1.53%	0.76%	1.02%	0.81%
Hispanic	5.10%	1.85%	2.38%	1.55%	1.70%	1.53%
Asian	5.43%	2.87%	4.55%	2.62%	3.14%	3.35%
Native Hawaiian/Pac. Islander	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
Am. Indian & Alaska Native	0.56%	0.14%	0.29%	0.07%	0.07%	0.07%
Panel C. Disparity Indices						
Female		49.76%		71.38%	77.89%	71.85%
Equally male-/female-owned		82.55%		65.01%	69.31%	63.89%
African-American		23.13%		49.96%	67.01%	52.65%
Hispanic		36.32%		65.32%	71.48%	64.50%
Asian		52.79%		57.46%	68.86%	73.59%
Native Hawaiian/Pac. Islander		0.00%		0.00%	0.00%	0.00%
Am. Indian & Alaska Native		25.66%		24.33%	23.98%	23.34%

Source: See Table 5.22.

Table 5.26. Disparity Indices from the 2002 Survey of Business Owners: United States, Goods and Services Industries

	Number of Firms	Sales and Receipts (\$000s)	Employer Firms	Sales and Receipts (\$000s)	Employees	Payroll (\$000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
United States	16,483,828	7,098,038,362	3,766,027	6,562,966,984	44,921,382	1,216,454,597
Female	5,352,675	791,981,854	731,585	683,309,413	6,112,930	136,263,493
Equally male-/female-owned	2,127,298	599,590,569	563,826	518,499,815	4,792,998	100,725,554
African-American	1,006,727	69,615,017	74,775	51,198,974	627,990	12,953,555
Hispanic	1,222,619	175,465,336	155,036	145,317,548	1,248,275	27,265,319
Asian	910,580	289,714,797	282,078	259,673,591	1,971,041	44,417,881
Native Hawaiian/Pac. Islander	22,856	3,105,976	3,372	3,329,425	27,968	772,853
Am. Indian & Alaska Native	146,629	18,727,781	16,395	15,551,287	144,620	3,422,731
Panel B. Column Percentages						
United States	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Female	32.47%	11.16%	19.43%	10.41%	13.61%	11.20%
Equally male-/female-owned	12.91%	8.45%	14.97%	7.90%	10.67%	8.28%
African-American	6.11%	0.98%	1.99%	0.78%	1.40%	1.06%
Hispanic	7.42%	2.47%	4.12%	2.21%	2.78%	2.24%
Asian	5.52%	4.08%	7.49%	3.96%	4.39%	3.65%
Native Hawaiian/Pac. Islander	0.14%	0.04%	0.09%	0.05%	0.06%	0.06%
Am. Indian & Alaska Native	0.89%	0.26%	0.44%	0.24%	0.32%	0.28%
Panel C. Disparity Indices						
Female		34.36%		53.60%	70.05%	57.66%
Equally male-/female-owned		65.46%		52.77%	71.27%	55.31%
African-American		16.06%		39.29%	70.41%	53.63%
Hispanic		33.33%		53.79%	67.50%	54.45%
Asian		73.89%		52.83%	58.58%	48.75%
Native Hawaiian/Pac. Islander		31.56%		56.66%	69.54%	70.96%
Am. Indian & Alaska Native		29.66%		54.43%	73.95%	64.63%

Source: See Table 5.22.

Table 5.27. Disparity Indices from the 2002 Survey of Business Owners: NY-NJ-CT, Goods and Services Industries

	Number of Firms	Sales and Receipts (\$000s)	Employer Firms	Sales and Receipts (\$000s)	Employees	Payroll (\$000s)
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Levels						
NY-NJ-CT	1,960,458	928,065,952	473,845	857,252,175	4,926,631	159,399,139
Female	628,793	98,548,567	84,988	84,318,452	685,432	17,390,847
Equally male-/female-owned	176,941	60,494,635	49,009	52,906,150	379,653	9,990,093
African-American	148,105	9,598,989	9,450	6,843,218	64,153	1,680,169
Hispanic	187,880	17,280,442	18,441	13,758,883	100,785	2,480,905
Asian	167,010	45,245,005	46,681	40,475,364	228,300	5,904,994
Native Hawaiian/Pac. Islander	3,587	237,861	148	-	-	-
Am. Indian & Alaska Native	11,169	858,434	841	589,964	6,943	132,569
Panel B. Column Percentages						
NY-NJ-CT	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Female	32.07%	10.62%	17.94%	9.84%	13.91%	10.91%
Equally male-/female-owned	9.03%	6.52%	10.34%	6.17%	7.71%	6.27%
African-American	7.55%	1.03%	1.99%	0.80%	1.30%	1.05%
Hispanic	9.58%	1.86%	3.89%	1.60%	2.05%	1.56%
Asian	8.52%	4.88%	9.85%	4.72%	4.63%	3.70%
Native Hawaiian/Pac. Islander	0.18%	0.03%	0.03%	0.00%	0.00%	0.00%
Am. Indian & Alaska Native	0.57%	0.09%	0.18%	0.07%	0.14%	0.08%
Panel C. Disparity Indices						
Female		33.11%		54.84%	77.57%	60.83%
Equally male-/female-owned		72.22%		59.67%	74.51%	60.60%
African-American		13.69%		40.03%	65.29%	52.85%
Hispanic		19.43%		41.24%	52.57%	39.99%
Asian		57.23%		47.93%	47.04%	37.60%
Native Hawaiian/Pac. Islander		14.01%		0.00%	0.00%	0.00%
Am. Indian & Alaska Native		16.24%		38.78%	79.40%	46.86%

Source: See Table 5.22.

**Statistical Disparities In Minority and Female Business Formation and Business
Owner Earnings**

VI. Statistical Disparities in Capital Markets

Discrimination occurs whenever the terms of a transaction are affected by personal characteristics of the participants that are not relevant to the transaction. Among such characteristics, the most commonly considered are race, ethnicity and gender. In labor markets, this might translate into equally productive workers in similar jobs being paid different salaries because of their race, ethnicity or gender. In credit markets, it might translate into loan approvals differing across racial or gender groups with otherwise similar financial backgrounds.

In this Chapter, we examine whether there is evidence consistent with the presence of discrimination in the small business credit market against minority-owned or women-owned small businesses. Discrimination in the credit market against such businesses can have an important effect on the likelihood that they will succeed. Moreover, discrimination in the credit market might even prevent businesses from opening in the first place.

In our analysis, we use data from the Federal Reserve Board to examine the existence or otherwise of discrimination in the small business credit market for 1993, 1998 and 2003. These surveys are based on a large representative sample of firms with fewer than 500 employees and are administered by the Federal Reserve Board and the U.S. Small Business Administration. The 1993 and 1998 surveys deliberately oversampled minority-owned firms but the 2003 survey did not.¹⁹⁶

These data provide qualitative and quantitative evidence consistent with the presence of discrimination against minorities in the credit market for small businesses. For example, we find that African-American-owned firms are much more likely to report being seriously concerned with credit market problems and report being less likely to apply for credit because they fear the loan would be denied. Moreover, after controlling for a large number of characteristics of the firms, we find that African-American-owned firms, Hispanic-owned firms, and to a lesser extent other minority-owned firms are substantially and statistically significantly more likely to be denied credit than are non-minority-owned firms. We find some evidence that women are discriminated against in this market as well. The principal results are as follows:

- Minority-owned firms were more likely to report that they did not apply for a loan over the preceding three years because they feared the loan would be denied.
- When minority-owned firms applied for a loan their loan requests were substantially more likely to be denied than non-minorities, even after accounting for differences like firm size and credit history.
- When minority-owned firms *did* receive a loan they were obligated to pay higher interest rates on the loans than comparable non-minority-owned firms.

¹⁹⁶ The 2003 survey took other steps, however, to increase the likelihood that minority-owned and women-owned firms were captured in the sampling frame. For more details, see NORC (2005), p. 11.

- A larger proportion of minority-owned firms than non-minority-owned firms report that credit market conditions are a serious concern.
- A larger share of minority-owned firms than non-minority-owned firms believes that the availability of credit is the most important issue likely to confront them in the upcoming year.
- There is no evidence that discrimination in the market for credit is significantly different in the Middle Atlantic census division or in the construction and construction-related professional services industries than it is in the nation or the economy as a whole.
- There is no evidence that the level of discrimination in the market for credit has diminished between 1993 and 2003.

The structure of this Chapter is as follows. First, we outline the main theories of discrimination and discuss how they might be tested. Second, we examine the evidence on the existence of capital/liquidity constraints facing individuals in the mortgage market, households in the non-mortgage loan market, and for small businesses in the commercial credit market. Third, we describe the data files used in the remainder of the Chapter and then examine in more detail problems faced by minority-owned firms in obtaining credit. Fourth, we provide a series of answers to criticisms. Finally, we present our conclusions.

A. Theoretical Framework and Review of the Literature

Most recent economic studies of discrimination draw on the analyses contained in Gary Becker's (1957) *The Economics of Discrimination*. Becker's main contribution was to translate the notion of discrimination into financial terms. Discrimination, in this view, results from the desire of owners, workers, or customers to avoid contact with certain groups. This being the case, transactions with the undesired groups would require more favorable terms than those that occur with a desired group. Assume that the primary objective of a financial institution is to maximize their expected profits. The expected return on a loan will depend on the interest rate charged and the likelihood that a borrower defaults. The financial institution would approve any loan for which the expected return on the loan exceeded the cost of the funds to the institution. Discrimination would then result in either (a) higher interest rates being charged to undesired groups having otherwise similar characteristics to the desired group or (b) requiring better characteristics (*i.e.* a lower expected default rate) from the undesired group at any given interest rate. In other words, applicants from the disadvantaged group might either be appraised more rigorously or be given less favorable terms on the loan.

A similar connection between the likelihood of loan approval and the race, ethnicity or gender of the applicant might also be found if lenders employ statistical discrimination—meaning that lenders use personal characteristics such as race, ethnicity or gender to infer the likelihood of default on the loan. If experience has suggested that certain groups of individuals are on average more or less likely to default, then the lender may use this information to economize on the costs of gathering more directly relevant information. Hence, discrimination would not reflect the preferences of the owner but would rather reflect an attempt to minimize costs. Empirically, the

racial, ethnic or gender characteristics of the applicant could proxy for unobserved characteristics of their creditworthiness.

There has been an active debate about whether banks discriminate against minority applicants for mortgages. In particular, banks were often accused of “redlining”—that is, not granting loans for properties located in certain areas. To analyze that issue, the Home Mortgage Disclosure Act was passed to require lenders to disclose information on the geographic location of their home mortgage loans. These data, however, were not sufficient to assess whether or not there was discrimination in the market for mortgage loans.

In 1992, researchers at the Federal Reserve Bank of Boston collected additional information from mortgage lenders (Munnell et al., 1996). In particular, they tried to collect any information that might be deemed economically relevant to whether a loan would be approved. In the raw data, non-minorities had 10 percent of their loans rejected whereas rejection rates were 28 percent for both African-Americans and Hispanics. Even after the creditworthiness of the borrowers (including the amount of the debt, debt-to-income ratio, credit history, loan characteristics, etc.) were controlled for, African-Americans were still found to be 7 percentage points less likely to be granted the loan. A variety of criticisms have been launched at this study (see, for example, Horne, 1994; Day and Liebowitz, 1998; Harrison, 1998). Responses to these criticisms are found in Browne and Tootell (1995).

In addition to the type of statistical analysis done in the Munnell et al. (1996) study, two other approaches have been used to measure discrimination in mortgage markets. First, Federal Reserve regulators can examine a lending institution’s files to try to identify any cases where a loan rejection looks suspicious. Second, audit studies have been used with paired “identical” applicants. Such studies have also found evidence of discrimination (*c.f.* Cloud and Galster, 1993) although the audit approach is not without its critics (Heckman, 1998).

Another relevant literature is concerned with the severity of liquidity constraints affecting consumers in non-mortgage credit markets. A consumer is said to be liquidity-constrained when lenders refuse to make the household a loan or offer the household less than they wished to borrow (Ferri and Simon, 1997). Many studies have suggested that roughly twenty percent of U.S. families are liquidity-constrained (*cf.* Hall and Mishkin, 1982; and Jappelli, 1990). As might be expected, liquidity-constrained households are typically younger, with less wealth and accumulated savings (Hayashi, 1985; and Jappelli, 1990). The research shows non-minority households to be substantially more likely to be liquidity-constrained even when a variety of financial characteristics of households are controlled for (Jappelli, 1990; and Ferri and Simon, 1997).

We now turn to the more directly relevant evidence on liquidity constraints facing small businesses. Just like individuals and households, businesses can also face liquidity constraints.¹⁹⁷

¹⁹⁷ Evans and Leighton (1989) and Evans and Jovanovic (1989) have argued formally that entrepreneurs face difficulties borrowing money. As in the discussion above, such individuals are labeled liquidity constrained by economists. Using data from the National Longitudinal Survey of Youth from 1966-1981 and the Current Population Surveys from 1968-1987, these authors found that, all else equal, people with greater family assets are more likely to switch to self-employment from employment. Blanchflower and Oswald (1998) studied the

Liquidity constraints can be a problem in starting a business as well as in running it. Discrimination in the credit market against minority-owned small businesses can have a devastating effect on the success of such businesses, and even prevent them from opening in the first place. Evidence of the latter effect is provided in the economics literature on self-employment.¹⁹⁸

In his 2003 report for *Builders Association of Greater Chicago v. the City of Chicago*,¹⁹⁹ Bates argued that “from its origins, the black-business community has been constrained by limited access to credit, limited opportunities for education and training, and non-minority stereotypes about suitable roles for minorities in society” (Bates, 1989; Bates, 1993; Bates, 1973). Indeed, as Bates points out, Gunnar Myrdal observed,

“The Negro businessman ... encounters greater difficulties than whites in securing credit. This is partly due to the marginal position of Negro business. It is also partly due to prejudicial opinions among whites concerning business ability and personal reliability of Negroes. In either case a vicious circle is in operation keeping Negro business down” (Myrdal, 1944, 308).

Bates goes on to argue that commercial banks lend most easily to non-minority males who possess significant amounts of equity capital to invest in their businesses (Bates, 1991a). Apart from banks, an important source of debt capital for small business is likely to be family and friends, but the low wealth of African-American households reduces the availability of debt capital that family and friends could invest in small business operations (Bates, 1993; Bates, 1991b).

Additional evidence indicates that capital constraints for African-American-owned businesses are particularly large. For instance, Bates (1989) finds that racial differences in levels of financial capital do have a significant effect upon racial patterns in business failure rates. Fairlie and Meyer (1996) find that racial groups with higher levels of unearned income have higher levels of self-employment. In an important paper Fairlie (1999) uses data from the 1968-1989 Panel Study of Income Dynamics to examine why African-American men are one-third as likely to be self-employed as non-minority men. The author finds that the large discrepancy is due to a African-American transition rate into self-employment that is approximately one half the non-minority rate and a African-American transition rate out of self-employment that is twice the non-minority rate. He finds that capital constraints—measured by interest income and lump-sum cash

probability that an individual reports him or herself as self-employed. Consistent with the existence of capital constraints on potential entrepreneurs, their econometric estimates imply that the probability of being self-employed depends positively upon whether the individual ever received an inheritance or gift. Second, when directly questioned in interview surveys, potential entrepreneurs say that raising capital is their principal problem. Holtz-Eakin et al. (1994a, 1994b) examine flows in and out of self-employment and find that inheritances both raise entry and slow exit. Black, de Meza and Jeffreys (1996) find that housing equity plays an important role in shaping the supply of entrepreneurs. Lindh and Ohlsson (1996) suggest that the probability of being self-employed increases when people receive windfall gains in the form of lottery winnings and inheritances.

¹⁹⁸ See Chapter V, above.

¹⁹⁹ 298 F.Supp.2d 725 (N.D. Ill. 2003).

payments—significantly reduce the flow into self-employment from wage/salary work, with this effect being nearly seven times larger for African-American self-employed than for non-minority self-employed persons. Fairlie then attempts to decompose the racial gap in the transition rate into self-employment into a part due to differences in the distributions of individual characteristics and a part due to differences in the processes generating the transitions. He finds that differences in the distributions of characteristics between African-Americans and non-minorities explain only a part of the racial gap in the transition rate into self-employment. In addition, racial differences in specific variables, such as levels of assets and the likelihood of having a self-employed father provide important contributions to the gap. He concludes, however, that “the remaining part of the gap is large and is due to racial differences in the coefficients. Unfortunately, we know much less about the causes of these differences. They may be partly caused by lending or consumer discrimination against blacks” (1998, p.14).

There is also research into racial differences in access to credit among small businesses. Cavalluzzo and Cavalluzzo (1998) use data from the 1988-1989 National Survey of Small Business Finances (NSSBF), conducted by the Board of Governors of the Federal Reserve System, to analyze differences in application rates, denial rates, and other outcomes by race, ethnicity and gender in a manner similar to the econometric models reported in this study. This paper documents that a large discrepancy exists in credit access between non-minorities and minority-owned firms that cannot be explained by a handful of firm characteristics. Unfortunately, the earlier NSSBF data did not over-sample minority-owned firms and included limited information on a firm’s credit history and that of its owner, reducing the ability to provide a powerful test of the causal impact of race, ethnicity or gender on loan decisions. In an unpublished paper, Cole (1998) uses the 1993 NSSBF and estimates models of loan denials similar in nature to those discussed in this Study.

The present analysis takes advantage of the 1993 NSSBF data, the 1998 Survey of Small Business Finances (SSBF) data, and the 2003 SSBF data. All three datasets have better information on creditworthiness than did the earlier NSSBF data, and the 1993 and 1998 surveys have larger sample of minority-owned firms than did the earlier NSSBF data. These datasets are also used to conduct an extensive set of specification checks designed to weigh the possibility that our results are subject to alternative interpretations.

B. Empirical Framework and Description of the Data

1. Introduction

Disputes about discrimination typically originate in differences in the average outcomes for two groups. To determine whether a difference in the loan denial rate for African-American-owned firms compared to non-minority-owned firms is consistent with discrimination, it is necessary to compare African-American- and non-minority-owned firms that have similar risks of default, that is, the fraction of the African-American firms’ loans that would be approved if they had the same creditworthiness as the non-minority-owned firms. A standard approach to this problem is to statistically control for firms’ characteristics relevant to the loan decision. If African-American-owned firms with the same likelihood of default as non-minority-owned firms are less likely to be approved, then it is appropriate to attribute such a difference to discrimination.

Following Munnell et al. (1996) we estimated the following loan denial equation:

$$(1) \quad \text{Prob}(D_i = 1) = \Phi(\beta_0 + \beta_1 CW_i + \beta_2 X_i + \beta_3 R_i),$$

where D_i represents an indicator variable for loan denial for firm i (that is, 1 if the loan is denied and 0 if accepted), CW represents measures of creditworthiness, X represents other firm characteristics, R represents the race, ethnicity or gender of the firm's ownership, and Φ is the cumulative normal probability distribution.²⁰⁰ This econometric model can be thought of as a reduced form version of a structural model that incorporates firms' demand for and financial institutions' supply of loan funds as a function of the interest rate and other factors.²⁰¹ Within the framework of this model, a positive estimate of β_3 is consistent with the presence of discrimination.²⁰²

2. 1993 NSSBF Data

The 1993 NSSBF data contain substantial information regarding credit availability on a nationally representative target sample of for-profit, non-farm, non-financial business enterprises with fewer than 500 employees. The survey was conducted during 1994 and 1995 for the Board of Governors of the Federal Reserve System and the U.S. Small Business Administration; the data relate to the years 1992 and 1993. The data file used here contains 4,637 firms.²⁰³ In this NSSBF file, minority-owned firms were over-sampled, but sampling weights are provided to generate nationally representative estimates. Of the firms surveyed, 9.5 percent were owned by African-Americans, 6.4 percent were owned by Hispanics, and 7.4 percent were owned by individuals of other races (*i.e.* Asians, Pacific Islanders, American Indians, and Alaska Natives).²⁰⁴

Table 6.1 presents population-weighted sample means from these data for all firms in the sample that applied for credit. The estimates indicate that African-American-owned firms are almost 2.5

²⁰⁰ Additional discussion of Probit regression appears in Chapter V, Section C.1.

²⁰¹ Maddala and Trost (1994) describe two variants of such a model, one in which the interest rate is exogenous and another in which the interest rate is endogenously determined, but is capped so that some firms' loan applications are approved and others are rejected. If the interest rate is exogenous, they show that a reduced form model which controls for the loan amount, such as we report below, uniquely identifies supply-side differences in the treatment of African-American-owned firms. If the interest rate is endogenous, a reduced form approach requires an assumption that the determinants of demand for non-minority and African-American-owned firms are identical, other things being equal. The main alternative empirical strategy is to estimate a structural supply and demand model, in which proper identification generally is not feasible. Any characteristic of the borrower that affects his/her expected rate of return on the investment will affect his/her ability to repay and should be taken into consideration by the lender as well. For instance, in their structural model of mortgage decisions, Maddala and Trost (1994) impose questionable exclusion restrictions, like omitting marital status from the loan supply equation.

²⁰² The Equal Credit Opportunity Act prohibits discrimination in access to credit by race and would apply to both Becker-type and statistical discrimination.

²⁰³ The median size of firms in the sample was 5.5 and mean size was 31.6 full-time equivalent employees; 440 firms out of 4,637 had 100 or more full-time equivalent employees.

²⁰⁴ There were also two firms in the "Other race" category in 1993 that reported multiple or mixed race.

times more likely to have a loan application rejected as are non-Hispanic White-owned firms (hereafter “non-minority”) (65.9 percent versus 26.9 percent).²⁰⁵ Other minority groups are denied at rates higher than non-minorities as well, but the magnitude of the African-American-non-minority differential is especially striking.

Minority-owned firms, however, do have characteristics that are different from those of non-minority-owned firms, and such differences may contribute to the gap in loan denial rates. For instance, minority-owned firms were younger, smaller (whether measured in terms of sales or employment), more likely to be located in urban areas, and more likely to have an owner with fewer years of experience than their non-minority counterparts. Minority firms were also less creditworthy, on average, than their non-minority counterparts, as measured by whether (a) the owner had legal judgments against him or her over the previous three years, (b) the firm had been delinquent for more than 60 days on business obligations over the preceding three years, or (c) the owner had been delinquent for more than 60 days on personal obligations over the prior three years. Additionally, compared to non-minority-owned firms, African-American-owned firms were also more likely, on average to have owners who had declared bankruptcy over the preceding seven years.

Minority-owned firms also sought smaller amounts of credit than non-minority-owned firms. This was particularly true for African-American-owned firms, who requested loans that were, on average, about 60 percent smaller than those requested by non-minority-owned firms; and Hispanic-owned firms, who requested loans about 42 percent smaller than those requested by non-minority-owned firms.

The NSSBF database does not identify the specific city or state where the firm is located; instead, data are reported for four census regions, nine census divisions, and urban or rural location. Table 6.2 presents evidence for the Middle Atlantic Census division (hereafter MIDATL), which includes all of New York State and all of the New York-Newark-Bridgeport, NY-NJ-CT-PA Combined Statistical Area, except for the Connecticut portion.²⁰⁶ The 1993 MIDATL sample includes the owners of 600 firms, of which 241 firms (40.2%) said that they had applied for a loan over the preceding three-year period.

The overall denial rate in the MIDATL is higher than the national rate reported in Table 6.1, but this difference is not statistically significant. The difference in the denial rates between African-American-owned and non-minority-owned firms is somewhat lower in the MIDATL (39.0 percentage points nationally and 26.2 percentage points in the MIDATL), but again this difference is not statistically significant. Indeed, in the large majority of cases, the weighted

²⁰⁵ Cavalluzzo and Cavalluzzo (1998) examined these outcomes using the 1987 NSSBF and similarly found that denial rates (weighted) are considerably higher for minorities. non-minority-owned firms had a denial rate for loans of 22 percent compared with 56 percent for African-Americans, 36 percent for Hispanics, and 24 percent for other races, which are broadly similar to the differences reported here. These estimates for minority groups are estimated with less precision, however, because of the smaller number of minority-owned firms in the 1987 sample.

²⁰⁶ The Middle Atlantic division includes the state of New York, New Jersey, and Pennsylvania.

sample means are not statistically significantly different in the MIDATL than in the nation as a whole—either overall or by race, ethnicity or gender.

C. Qualitative Evidence

Before moving on to the results of our multivariate analysis, we first report on what business owners themselves say are their main problems. While this evidence is not conclusive in determining whether discrimination exists, it highlights firms' perceptions regarding discrimination in obtaining credit. That African-American-owned firms and other minorities report greater difficulty in obtaining credit than do non-minority-owned firms, but report other types of problems no more frequently, suggests either that discrimination takes place or that perceptions of discrimination exist that are unwarranted. It therefore complements the econometric analysis provided subsequently, which can distinguish between these two hypotheses.

Table 6.3 summarizes, for the U.S. as a whole, responses to specific questions about problems that firms confronted over the 12-month period before the date of response. In the top panel, respondents were asked to what extent credit market conditions had been a problem. African-Americans and Hispanics were much more likely to say that it had been a “serious” problem (31.3 percent and 22.9 percent, respectively) than non-minorities (12.7 percent). The bottom panel of the table reports the results for eight other designated problem areas—(1) training costs; (2) worker's compensation costs; (3) health insurance costs; (4) IRS regulation or penalties; (5) environmental regulations; (6) the Americans with Disabilities Act; (7) the Occupational Safety and Health Act; and (8) the Family and Medical Leave Act. Differences by race, ethnicity or gender are much less pronounced in these eight areas than they are in relation to credit market conditions.²⁰⁷ The finding that African-American-owned and Hispanic-owned firms are largely indistinguishable from non-minority-owned firms in reporting a variety of problems, except for the case of credit, indicates that minority-owned firms perceive credit availability to be a particular problem for them.

Results are broadly similar in Table 6.4 for the MIDATL division—with African-American and Hispanic firms being more likely than non-minority-owned firms to say that credit market conditions had been a serious problem in the preceding 12 months.

Table 6.5 reports the views of NSSBF respondents for the U.S. as a whole and Table 6.6 reports views for the MIDATL on the most important issue businesses expected to face over the next 12 months. Nationally, credit availability and cash flow again appear to be more important issues for African-American-owned firms than for non-minority-owned firms. Non-minority-owned firms were especially worried about health care costs. Hispanic and Other minority-owned firms were especially worried about general business conditions.

²⁰⁷ We also estimated a series of ordered Logit equations (not reported) to control for differences across firms in their creditworthiness, location, industry, size, and the like. It is apparent from these regressions that African-American-owned firms were more likely to report that credit market conditions were especially serious.

In the MIDATL, credit availability and cash flow are far more important issues for African-American-owned firms than for non-minority-owned firms. Almost twice as many African-American-owned firms reported credit availability as the most important issue than non-minority-owned firms, and almost four times as many reported cash flow. In contrast, in the MIDATL general business conditions were a large concern for all types of firms.

Acute credit availability problems for minorities have been reported in surveys other than the NSSBF. In the 1992 Characteristics of Business Owners (CBO) Survey, conducted by the Census Bureau, for example, when owners were asked to identify the impact of various issues on their firm's profitability, 27.0 percent of African-American-owned firms reporting an answer indicated that lack of financial capital had a strong adverse impact—compared to only 17.3 percent among non-minority male-owned firms. Hispanic-owned firms and other minority-owned firms also reported higher percentages than non-minority male-owned firms—21.3 percent and 19.7 percent, respectively. Further, owners who had recently discontinued their business because it was unsuccessful were asked in the CBO survey to identify the reasons why. African-American-owned firms, and to a lesser degree Hispanic-owned firms, other minority-owned firms, and women-owned firms, were much more likely than non-minority male-owned firms to report that the reason was due to lack of access to business or personal loans or credit. For unsuccessful firms that were discontinued, 7.3 percent of firms owned by non-minority males reported it was due to lack of access to business loans or credit compared to 15.5 percent for firms owned by African-Americans, 8.8 percent for Hispanics, 6.1 percent for other minorities, and 9.3 percent for women. Another 2.7 percent of non-minority males said it was due to lack of personal loans or credit compared to 8.4 percent for firms owned by African-Americans, 5.8 percent for Hispanics, 6.4 percent of Other minorities, and 3.3 percent for women.²⁰⁸

A more recent study published by the U.S. Chamber of Commerce (2005) is consistent with these findings from the 1993 NSSBF and the 1992 CBO.²⁰⁹ The Chamber of Commerce survey was conducted in March and April 2005 and detailed the financing problems experienced by small business owners, 95 percent of whom had less than 100 employees. Over 1,000 business owners were interviewed. As detailed in Table 6.7, minority-owned businesses report that availability of credit is their top problem. The biggest difference in responses between minorities and non-minority men and women was availability of credit: 19 percent of non-minority males report credit as their top problem compared with 54 percent for minority males. There was a 15 percentage point difference between minority women and non-minority women. In no other category is there more than a 10 percentage point difference for men or women.

In summary, African-American-owned and Hispanic-owned firms in particular and to a lesser extent other minority-owned firms and women-owned firms report that they had problems with the availability of credit in the past and expected that such difficulties would continue into the

²⁰⁸ Bureau of the Census (1997), Table 5a, p. 46, Table 1, p. 21.

²⁰⁹ Unfortunately, although the CBO is part of the Economic Census, it was not published in 1997. In 2002, the name was changed to the Survey of Business Owners (SBO). Unfortunately, questions relating to the importance of access to financial loans and credit to business success were not included in the 2002 survey.

future. Whether or not these perceptions reflect actual discrimination can be distinguished in the econometric analyses to follow.

D. Differences in Loan Denial Rates by Race, Ethnicity or Gender

Evidence presented to this point indicates that minority-owned firms are more likely to be denied loans and report that their lack of access to credit significantly impairs their business. Can these differences be explained by such things as differences in size, creditworthiness, location, or other factors as some have suggested in the literature on discrimination in mortgage lending (Horne, 1994; Bauer and Cromwell, 1994; and Yezer, Phillips, and Trost, 1994)? To address this question we turn to an econometric examination of whether the loan requests made by minority-owned firms are more likely to be denied, holding constant important differences among firms.

In Table 6.8 and Table 6.9, we report the results from a series of loan denial Probit regressions of the form specified in Equation (1) using data from the 1993 NSSBF for the U.S. and the SATL region.²¹⁰ As indicated earlier, the 1993-2003 datasets have the particular advantage that they include information that can be used to proxy an applicant's creditworthiness. We report estimates from these models that can be interpreted as changes or differences in loan denial probabilities depending on the type of variables considered. For indicator variables, such as race, ethnicity and gender indicators, estimates show differences in loan denial probabilities between the indicated group and the base group.²¹¹ In Column (1) of Table 6.8 (in which the regression model contains only race and gender indicators), the estimated coefficient of 0.443 on the African-American indicator can be interpreted as indicating that the denial rate for African-American-owned businesses is 44.3 percentage points higher than that for non-minority male-owned firms.²¹²

The remainder of Table 6.8 includes additional explanatory variables to hold constant differences in the characteristics of firms that may vary by race, ethnicity or gender.²¹³ In Column (2) a

²¹⁰ Firms owned 50-50 by minorities and non-minorities are excluded from this and all subsequent analyses, as are non-minority firms owned 50-50 by women and men.

²¹¹ For "continuous" variables, such as profits and sales, estimates can be thought of as changes in loan denial probability when the continuous variable changes by one unit. For example, in Column (2) of Table 6.8, the estimated coefficient of -0.003 on owner's years of experience indicates that one additional year of owner's experience is related to -0.3 percentage point reduction in loan denial rate.

²¹² This estimate largely replicates the raw difference in denial rates between African-American- and non-minority-owned businesses reported in Table 6.1. The raw differential observed there ($0.659 - 0.269 = 0.39$) differs slightly from the 0.443 differential reported here because this specification also controls for whether the business is owned by a non-minority female and because the regressions are unweighted whereas the descriptive statistics are weighted using the sample weights. When a full set of explanatory control variables are included the unweighted estimates are insignificantly different from the weighted estimates, hence in Table 6.8 and subsequent tables we report only unweighted estimates.

²¹³ In preliminary analyses, these models were also estimated separately, focusing specifically on the differences in coefficient estimates between non-minorities and African-Americans. The F-Test conducted to determine whether parameter estimates were the same for African-Americans and non-minorities rejected this null hypothesis. Next, the estimates obtained by estimating the model separately by race were used to conduct an Oaxaca (1973) decomposition. The results from this analysis were similar to those obtained by restricting the coefficients to be

number of controls are included that distinguish the creditworthiness of the firm and the owner. Many are statistically significant on a two-tailed test at conventional levels of significance with the expected signs. For instance, having been bankrupt or had legal judgments against the firm or owner raises the probability of denial; stronger sales lower this probability. **Even after controlling for these differences in creditworthiness, however, African-American-owned firms remain 29 percentage points more likely than non-minority-owned firms to have their loan request denied.**

The models reported in Columns (3) through (5) of Table 6.8 control for an array of additional characteristics of firms. Column (3) adds 39 additional characteristics of the firm and the loan application, including such factors as level of employment, change in employment, the size of the loan request, and the use of the loan. Column (4) includes variables to control for differences across regions of the country and major industry group. Column (5) adds variables indicating the month and year in which the loan was requested and the type of financial institution to which the firm applied.²¹⁴ In total these three columns add 176 variables to the more parsimonious specification reported in Column (2).²¹⁵ Nevertheless, the estimated disadvantage experienced by African-American-owned firms in obtaining credit remains large and statistically significant. The estimate from each of the three additional columns indicates that African-American-owned firms are 24 percentage points more likely than non-minority male-owned firms to have their loan application denied even after controlling for the multitude of factors we have taken into consideration.

The results also indicate that Asians/Pacific Islanders had significantly higher denial rates than non-minority males—12 percentage points. There is little evidence in the 1993 national data, however, that denial rates for firms owned by Native Americans or Hispanics were significantly different from the denial rates of firms owned by non-minorities; or that denial rates for firms owned by non-minority women were significantly different from those for firms owned by non-minority men.

In Table 6.9, we see results for the MIDATL region similar to those reported in Table 6.8 for the nation as a whole. The table shows that the results of our loan denial model in the MIDATL, which includes the State's market area, are not substantially different from the nationwide results

the same between African-Americans and non-minorities and using the coefficient on the African-American indicator variable to measure the gap between groups. In this Chapter, all the results are reported in this simpler format for ease of exposition and interpretation.

²¹⁴ Approximately four out of five (80.5%) of the firms who required a loan applied to a commercial bank. Overall seventeen different types of financial institution were tabulated, although only the following accounted for more than 1% of the (weighted) total— Finance Companies (4.9%); Savings Banks (2.5%); Savings & Loans (2.3%); Leasing Companies (2.1%); and Credit Unions (2.0%).

²¹⁵ One piece of information to which we did not have access in the 1993 NSSBF or the 1998 SSBF because of confidentiality concerns was each firm's credit rating. A working paper by Cavalluzzo, Cavalluzzo, and Wolken (1999) was able to incorporate Dun & Bradstreet credit ratings for each firm because the authors' connection to the Federal Reserve Board enabled them to access the confidential firm identifiers. They added these credit rating variables in a model comparable to that reported here and found the results insensitive to the inclusion. The 2003 SSBF includes Dun & Bradstreet credit ratings for each firm. Below, we discuss the impact of incorporating them into a model similar to that presented in Table 6.8 (see Tables 6.27 and 6.28).

reported in Table 6.8. The indicator variable for the MIDATL region is insignificantly different from zero; as are the interaction terms between race/ethnicity/gender and the MIDATL region.²¹⁶

Although the results provided so far strongly indicate that financial institutions treat African-American-owned and non-minority male-owned small businesses differently in lending, other considerations may limit our ability to interpret this finding as discrimination. Of perhaps greatest concern is the possibility that we may not have adequately controlled for differences in the creditworthiness of firms. If African-American-owned firms are less creditworthy and we have failed to sufficiently capture those differences then we would be inadvertently attributing the racial difference in loan denial rates to discrimination. On the other hand, however, if financial institutions discriminate against African-American-owned firms, then the greater likelihood of denial for African-Americans in earlier years is likely to hurt the performance of these firms and appear to make them look less creditworthy. Therefore, controlling for creditworthiness will likely understate the presence of discrimination.

As a check on the foregoing results, therefore, our first approach was to identify the types of information that financial institutions collect in order to evaluate a loan application and compare that with the information available to us in the NSSBF. First, a selection of small business loan applications was collected from various banks. An Internet search of web sites that provide general business advice to small firms was also conducted. Such sites typically include descriptions of the loan application process and list the kinds of information typically requested of applicants.²¹⁷

Bank loan applications typically request detailed information about both the firm and its owner(s). Regarding the firm, banks typically request information on: (a) type of business, (b) years in business, (c) number of full-time employees, (d) annual sales, (e) organization type (corporation or proprietorship), (f) owner share(s), (g) assets and liabilities, (h) whether the business is a party to any lawsuit, and (i) whether any back taxes are owed. Regarding the owner's personal finances, banks typically ask for: (a) assets and liabilities, (b) sources and levels of income, and (c) whether the owner has any contingent liabilities. Some applications ask explicitly if the firm qualifies as a minority-owned enterprise for the purposes of certain government loan guarantee programs. The race of the applicant, however, would be readily identifiable even in the absence of such a question since most of these loans would be originated through face-to-face contact with a representative of the financial institution.

These criteria seem to match reasonably closely the information available in the 1993 NSSBF. The particular strength of the NSSBF is the detail available on the firm, which covers much of the information typically requested on loan application forms. The main shortcoming that we have identified in these data is that less detail is available on the finances of the owner of the firm.²¹⁸ Although the creditworthiness measures enable us to identify those owners who have had

²¹⁶ The number of Native Americans in the MIDATL sample was too small to yield statistical results.

²¹⁷ An example of a typical application form is presented as Appendix B in Blanchflower, Levine, and Zimmerman (2003).

²¹⁸ This deficiency is remedied in the 1998 SSBF and the 2003 SSBF, discussed below, both of which contain information on the owner's home equity, and personal net worth excluding home equity and business equity.

serious financial problems (like being delinquent on personal obligations), we have no direct information regarding the owner's assets, liabilities, and income. These factors would be necessary to identify whether the business owner has sufficient personal resources to draw upon should the business encounter difficulties and to determine the personal collateral available should the firm default on its obligation. We do have measures of the owner's human capital in the form of education and experience, which likely capture at least some of the differential in available personal wealth across firm owners. Nevertheless, our potentially incomplete characterization of the business owner's personal financial condition may introduce a bias into our analysis if African-American business owners have fewer resources than non-minority business owners.

To assess the potential impact of this problem on our results, we separately examined groups of firms who differ in the degree to which personal finances should influence the loan decision and compare the estimated disadvantage experienced by African-American-owned firms in different groups. First, we examine proprietorships and partnerships separately from corporations since owners of incorporated businesses are at least somewhat shielded from incurring the costs of a failed business. Second, we divide firms according to size.²¹⁹ Both larger small businesses and those that have been in existence for some time are more likely to rely on the business's funds, rather than the owner's, to repay its obligations. Third, we consider firms that have applied for loans to obtain working capital separately from those firms that seek funds for other purposes (mainly to purchase vehicles, machinery and equipment, and buildings or land). Loans made for any of these other purposes are at least partially collateralized because the financial institution could sell them, albeit at a potentially somewhat reduced rate, should the small business default.²²⁰

In order to determine whether the findings for the MIDATL region were different from those for the nation, in the second column of Table 6.10 we also report the coefficient and t-statistics on an interaction term between the MIDATL region and African-American ownership. In only one case was the estimated coefficient on this interaction significant, implying that the national results also apply in general to the MIDATL.

Results from these analyses provide no indication that omitting the owner's personal wealth substantially biases the results presented above in Tables 6.8 or 6.9. Estimates presented in row numbers 1 through 8 of Table 6.10 indicate that African-American-owned small businesses are significantly more likely to have their loan applications rejected regardless of the category of

²¹⁹ As reported earlier, the mean and median size of firms is 5.5 and 31.6 full-time equivalent workers, respectively. 14 percent of firms have one or fewer employees and 27 percent have two or fewer employees. In the MIDATL, the figures are 5.5, 31.7, 16 percent, and 28 percent, respectively.

²²⁰ As indicated earlier, greater personal wealth may improve a small business's chances of obtaining credit because it provides collateral should the loan go bad and because wealthy owners can use their own resources to weather bad times, improving the likelihood of repayment. Our separate analysis of corporations and proprietorships and of large and small firms does not account for this second reason because corporations and large businesses may still need to draw on the owner's personal wealth to help it survive short-term shocks. Businesses that have been in existence for several years, however, are less likely to experience these shocks, making them less likely to require infusions from the owner's personal wealth. A loan used to purchase equipment that can be sold if the firm defaults similarly insulates the bank from the need to seek repayment directly from the owner.

firm considered. In particular, when samples are restricted to corporations, larger firms, and firms seeking credit for uses other than working capital, African-American-owned firms are 18, 21, and 17 percentage points more likely, respectively, to have their loan application rejected even though personal resources should be less important in these categories. Moreover, in each group where there are two types of firms (large and small, etc.), the estimates for the two types of firms are not significantly different from each other.

Another issue is whether the racial differences in loan denial rates among firms with similar characteristics can be attributed to differences in the geographic location of African-American- and non-minority-owned firms. If, for example, African-American-owned firms are more likely to be located in the central city, and a central city location is inversely correlated with profitability and the ability to repay debt, then financial institutions may be acting optimally in rejecting the loan applications of African-American-owned firms at a higher rate. As indicated earlier, this type of behavior is labeled “statistical discrimination.” In the subsequent text and tables, we present a limited analysis to address whether or not this type of behavior takes place.²²¹

To identify whether lenders’ behavior is consistent with this hypothesis we distinguish those firms that self-classified their sales market as being local rather than regional, national, or international. A central city location should have a greater impact on future profit expectations for those firms that operate on a local level. If minority-owned firms are more likely to locate in the central city, racial differences in loan denial rates should be greater in the firms that sell in the local marketplace. The results of this test, reported in row numbers 9 and 10 of Table 6.10, reject the hypothesis that differences in loan denial rates are attributable to different propensities to locate in the center of a city. Estimates for the nation as a whole indicate that African-American-owned firms that sell to the local market are 14 percentage points more likely to have their loan applications denied compared to a 21 percent excess denial rate for firms selling primarily to regional, national, or international markets. In the MIDATL, the figures are indistinguishable from those in the nation as a whole.

We also estimate models that address a potential weakness in the specific functional form with which we control for differences in credit history across firms. As shown in Tables 6.1 and 6.2, African-American-owned firms are considerably more likely to have had troubles in the past in the form of judgments against them, late payments by the firm or its owner, or past bankruptcies. The model specifications reported in Tables 6.8 and 6.9 implicitly assume that these past problems are additive in their effect on loan denials and one might suspect the marginal impact would rise as past problems rise. Therefore, in the final three rows of Table 6.10, we separated firms by the number of past problems experienced. In Rows 11 through 13, we restricted the sample to those firms that have never had any past credit problems, those firms that reported one problem only, and those firms that reported more than one of these problems, respectively. The results indicate that even African-American-owned firms with clean credit histories are at a

²²¹ A strong test to distinguish between statistical discrimination and “Becker-Type” discrimination would require a tremendous amount of detail about the specific location of the firm, characteristics of its surrounding area, characteristics of neighboring firms, and the like, which were unavailable to us. As indicated earlier, both forms of discrimination are illegal and this Chapter applies a definition that incorporates both.

significant disadvantage in getting their loans approved, holding constant their other characteristics. In fact, the estimated differential in loan approval rates between African-American- and non-minority-owned firms is statistically indistinguishable within each of these groups. Asian-owned firms with clean credit histories, as well, are also at a significant disadvantage relative to non-minority-male owned firms.

Finally, we considered whether African-American-owned firms are treated differently from non-minority-owned firms when requesting credit from other sources. The source of credit we examined is credit cards. Such an analysis provides a unique advantage because credit card applications are more likely to be filled out and mailed in, so it is less likely that the race of the applicant is known to the financial institution, at least in the case of African-American-owned firms and Native American-owned firms, where surname is unlikely to provide any signal about minority status. On the other hand, for Asian and Hispanic applicants, it is possible that surname does provide such a signal, although an imperfect one. The 1993 NSSBF asked respondents whether they used either a business or personal credit card for business purposes. Although our analysis of use of credit cards does not condition on application, a finding that African-American- and non-minority-owned small businesses are equally likely to use credit cards may still provide evidence supporting discrimination in small-business lending. In fact, if financial institutions discriminate against African-Americans in providing small business loans, we may even expect to see African-Americans use credit cards more often than non-minorities since they have fewer alternatives. Even though many institutions may offer both types of credit, they may only be aware of the race of the applicant in a small business loan.²²²

In Tables 6.11 and 6.12, we examine the probability that a firm uses either a business credit card (Row 1) or a personal credit card (Row 2) to finance business expenses holding constant other differences across firms.²²³ There is no evidence, either for the U.S. as a whole or for the MIDATL, that African-American-owned firms are less likely to access either business or personal credit cards for business expenses. On the other hand, there is evidence in the MIDATL and in the nation as a whole that Asian-owned firms are less likely to access business credit cards. Credit card use for financing business expenses may be an area where further research is warranted. Unfortunately, available data on this subject is quite limited.

²²² It appears that race may also rarely be known to those institutions that issue credit ratings. As we mentioned above, Cavalluzzo, Cavalluzzo, and Wolken (1999) show that Dun & Bradstreet Credit Ratings are not helpful in explaining racial disparities in loan denials. Although we are not privy to Dun & Bradstreet's method for establishing its credit ratings, we do know from long experience that the comprehensive indicators of ownership by race are lacking in the Dun & Bradstreet's data. Indeed, this is the reason why NERA's availability estimation method requires creating a master directory of disadvantaged, minority, and women-owned businesses for merging with Dun & Bradstreet's data.

²²³ On average, 29 percent of all firms use business credit cards and 41 percent use personal credit cards for business use; these levels vary only modestly by race and ethnicity. In the MIDATL the figures are 29 percent and 39 percent, respectively.

E. Differences in Interest Rates Charged on Approved Loans

Although most of our analysis has addressed whether minority- and non-minority-owned firms are treated equally in terms of their probability of loan denial, another way that differential treatment may emerge is through the interest rate charged for approved loans. Discrimination may be apparent if banks approve loans to equally creditworthy minority- and non-minority-owned firms, but charge the minority-owned firms a higher interest rate. Therefore, we estimated model specifications analogous to those reported previously for loan denials, but now the dependent variable represents the interest rate charged for firms whose loans were approved and the set of explanatory variables includes characteristics of the loan. More formally, the model we estimated takes the form:

$$(2) \quad I_i = \beta_0 + \beta_1 CW_i + \beta_2 X_i + \beta_3 R_i + \beta_4 LC_i + \varepsilon_i,$$

where I represents the interest rate charged on the loan, LC represents characteristics of the loan (see the notes to Table 6.8 for a full list of the variables included in this set), ε_i is a term capturing random factors, and all other notations are the same as in equation (1).

An important consideration is whether the interest rate may be treated as exogenous, as our reduced form model assumes. In the context of small business loans, in which it is possible that the loan terms may be negotiated in the determination process, this assumption may not be valid. As such, a model that simultaneously estimates the interest rate and the loan decision might be appropriate, except that the interest rate that would be charged to firms whose loans were denied is not available in our data. Alternatively, one could estimate an interest rate model alone for those firms whose loan was approved, adjusting for the potential bias brought about by sample selection. To properly identify such a model, however, a variable is required that is linked to the loan denial decision, but unrelated to the level of interest charged on approved loans; no such variable exists in the data.

Nevertheless, one would expect these considerations to impose a downward bias on the estimated differential in interest rates charged on loans to African-American-owned firms. Those firms whose loans were rejected would have been charged higher interest rates than those approved. Since African-American-owned businesses were considerably more likely to be rejected holding constant differences in creditworthiness, one would expect any differential in interest rate to be even greater if those firms were included in the sample. We overlook this implication in the results reported below, but its impact should be kept in mind.

The results obtained from estimating equation (2) are reported in Row 1 of Table 6.13, which includes the complete set of control variables comparable to those in Column (5) of Table 6.8. Estimates indicated that African-American-owned firms pay rates of interest that are roughly 1 full percentage point higher than similarly situated non-minority-owned firms. Row 2 shows that

even African-American-owned firms with good credit histories are charged higher interest rates relative to non-minority-owned firms.²²⁴

The remainder of the table presents similar specification checks to those reported in Table 6.10. Recall that most of these models identify firms for which the firm's own history is likely to be a more important contributor to its creditworthiness. The specifications by sales market are designed to distinguish the impact of central city location. Unfortunately, sample sizes are smaller in these specifications and reduce the power of the analysis. Nevertheless, we still find that regardless of organization type and firm age, African-American-owned firms face statistically significantly higher interest rates. Overall, the evidence presented indicates that African-Americans, and to a lesser extent Hispanics and Asians, do face disadvantages in the market for small business credit that does not appear to be attributable to differences in geography or creditworthiness.

Table 6.14 shows results for the MIDATL. Findings are comparable to those for the nation as a whole.

F. Loan Approval Rates and Access to Credit

The results presented so far may be biased toward finding too small a disparity between non-minority- and African-American-owned firms because those minority-owned firms that actually apply for credit may represent a selected sample of the most creditworthy. More marginal minority-owned firms whose loans may have been accepted had they been owned by non-minorities may not even be among the pool of loan applicants. First, these firms may have gone out of business or may not have had the opportunity to commence operations because of their inability to obtain capital. Second, some existing firms may have chosen not to apply for credit because they were afraid their application would be rejected due to prejudice.

Although we have no direct evidence regarding the first proposition, data from the 1993 NSSBF provide some evidence for the second: African-American- and Hispanic-owned firms are much more likely to report that they did not apply for a loan, even though they needed credit, because they thought they would be rejected. Table 6.15 reports estimates from Probit models in which the dependent variable is an indicator variable representing failure to apply for a loan fearing denial for all firms. The first row presents racial differences without controlling for any other characteristics of firms, and the results indicate that African-American- and Hispanic-owned firms are 40 and 23 percentage points more likely than non-minority-owned firms to withhold an application fearing denial.

Of course, some of this difference may be attributable to differences in creditworthiness across firms since firms that are bad credit risks should be afraid that their loan would be denied. To adjust for this, the second row of Table 6.15 reports comparable models that control for

²²⁴ Estimates from firms that have had past credit problems are not presented since the higher likelihood of their being denied credit restricts the size of the sample and limits the ability to provide a powerful test of the interest rates charged if they are approved.

differences in creditworthiness and other characteristics of firms. The results from this specification show that the greater fear of rejection among African-American- and Hispanic-owned firms can partially be explained by these differences. Nevertheless, a gap of 26 and 16 percentage points still exists for African-American- and Hispanic-owned firms relative to non-minority-owned firms with similar characteristics. In fact, when asked directly why they were afraid to apply for loans, minority-owned firms were far more likely to report prejudice as the reason (19 percent for African-American-owned firms, 8 percent for Hispanic-owned firms, and 3 percent for non-minority-owned firms).²²⁵ Results obtained in section (b) of Table 6.15 for the MIDATL region are very similar to those found for the nation as a whole. Further, as section (c) of Table 6.15 shows, African-American-owned firms in construction also appear to be fearful of applying because of the possibility of their application being turned down.²²⁶

If these minority-owned firms had applied for credit and were rejected because of discrimination, estimates of racial disparities based only upon loan applicants (as in Tables 6.8 and 6.9) would be understated. The perception of prejudice among these firms, however, does not necessarily imply that selection bias is present. Those firms that failed to apply because they feared rejection may have had similar loan denial rates as other minority-owned firms with comparable levels of creditworthiness that did apply. If those firms chose to apply for a loan, differences by race in the combined denial rate of the actual and potential applicants would be the same as what we have estimated for the observed sample of applicants.

More formally, suppose that loan denial rates for equally creditworthy non-minority- and minority-owned firms that applied for credit are θ^W and θ^m , respectively; the measure of discrimination employed in the previous analysis is $\theta^m - \theta^W$. Now suppose that firms that are equally creditworthy, but chose not to apply for a loan because they feared rejection, would have been denied at the rates θ^W and ψ^m for non-minority- and minority-owned firms, respectively. Among the non-minority-owned firms, the denial rate is identical regardless of whether the firm chose to apply or not, conditional upon creditworthiness. Among minority-owned firms, however, those who were afraid to apply may have been denied at a higher rate (perhaps because of their greater propensity to locate in the central city or other factors that are related to their race, but unrelated to creditworthiness) compared with other minority-owned firms. Then the correct representation of the disadvantage faced by minority-owned firms is $[\eta\theta^m + (1-\eta)\psi^m] - \theta^W$, where η represents the share of minority-owned firms desiring credit that submitted an application. Our earlier findings are biased if θ^m is not equal to ψ^m .

One approach that is frequently employed to address such a problem is to estimate a “Heckman-correction” that would formally model the application process in conjunction with the loan outcome for those who applied. The difficulty with this methodology in the present context is that it is only correctly implemented when some variable is present that is correlated with a firm’s decision to apply for a loan, but is independent of the financial institution’s decision to

²²⁵ Other reasons given, including “too little collateral,” “poor credit history,” and “poor balance sheet,” are comparable across groups. Firms could report more than one reason.

²²⁶ It was not possible to report separate construction results in earlier tables because of small sample sizes.

approve or deny the request. Unfortunately, the NSSBF data do not appear to contain any variables that would satisfy these conditions, so we are unable to implement this methodology.²²⁷

As an alternative that answers a different, but related, question we consider the ability of firms to get credit among those who desired it, regardless of whether or not they applied. This amounts to analyzing access to credit rather than loan approval and includes in the denominator those firms that needed credit but did not apply because they feared rejection. If differences by race in this rate among all firms who needed credit are greater than differences by race in the rate of denial among loan applicants, then this would indicate that African-American- and other minority-owned firms have even less access to credit than an analysis of loan applicants would indicate.

To test this proposition, we estimate a regression model comparable to the one reported in Table 6.10 for the sample of firms that applied for a loan, except that this analysis considers all firms seeking credit and treats those who did not apply for fear of rejection as denials. The sample excludes firms that did not need additional credit in the preceding three years. The results, reported in Table 6.16, are consistent with the previous analysis; we find that selection is not much of an issue for African-American-owned firms nationally, in the MIDATL region, or in construction sub-samples, or for Asian-owned firms nationally or in the MIDATL. Regardless of whether we consider denial rates among applicants or denial rates among firms that desired additional credit, African-American-owned firms are 20-30 percentage points less likely to obtain credit once control variables are included and even higher than that when they are not. For Hispanic-owned firms, however, some selection bias is evident. Among the pool of loan applicants, Hispanic-owned firms are not statistically significantly more likely to be denied than other firms with the same characteristics (see *e.g.* Table 6.8, Column 5). Among the pool of firms seeking additional credit, however, Hispanic-owned firms are 17 percentage points more likely to be denied access to credit, and this difference is statistically significant.

G. Analysis of Credit Market Discrimination in the U.S. in 1998

We turn next to an examination of the extent to which discrimination in the credit market has changed since 1993 using data from the 1998 SSBF conducted by the Board of Governors of the Federal Reserve System.²²⁸ This section updates the several estimates obtained above using the

²²⁷ The only variable that potentially could meet these conditions in the NSSBF data is the distance between a firm and the nearest financial institution. If greater distance reduced a firm's information regarding the availability of funds, it might be related to the decision to apply for a loan. On the other hand, the creditworthiness of the firm should be independent of its location and should be unlikely to enter into the approval process. Unfortunately, we did not find a direct relationship between distance to the nearest financial institution and the probability of applying for a loan. This may be due to the fact that few firms are located more than a very short distance from the nearest financial institution.

²²⁸ The target population of the survey was for-profit businesses with fewer than 500 employees that were either a single establishment or the headquarters of a multiple establishment company, and were not agricultural firms, financial institutions, or government entities. These firms also had to be in business during December 1998. Data were collected for fiscal year-end 1998. Like its 1993 counterpart, the purpose of this survey was to gather information about small business financial behavior and the use of financial services and financial service providers by these firms. The objectives of the survey were to collect information that can inform researchers and policy makers on the availability of credit to small businesses; the location of the sources of financial services; the types of financial services used, including checking accounts, savings accounts, various types of credit, credit

1993 NSSBF. Two complications are that the overall sample size is smaller and a number of the questions have been changed. However, the result is still clear – African-American-owned firms face discrimination in the credit market. In addition, there is evidence of discrimination in the credit market against other minority-owned firms as well. We present four sections of evidence, all of which are consistent with our findings from the 1993 survey.

1. Qualitative Evidence

Consistent with the 1993 survey, Table 6.17 shows that African-American-owned firms in the 1998 survey report that the biggest problem their firm currently faces is “financing and interest rates.” In the 1993 survey, respondents were asked to report problems in the preceding 12 months (Tables 6.3 and 6.4) and over the next 12 months (Tables 6.5 and 6.6). Interestingly, even though credit availability was by far the most important category for African-Americans (21 percent in Table 6.5), interest rates were relatively unimportant (2 percent). The 1998 SSBF, however, did not report separate categories.

2. Differences in Loan Denial Rates by Race/Ethnicity

In 1998 as in 1993, in comparison with firms owned by non-minority males, minority and female-owned firms were less creditworthy, more likely to have their loan applications turned down, more likely not to apply for a loan for fear of being denied, and consistently smaller and younger. Moreover, their owners had lower amounts of both home and non-home equity. Minority-owned firms in general, and African-American-owned firms in particular, were much less likely to be classified as having a “low risk” credit rating by Dun & Bradstreet.²²⁹

In the 1993 survey, respondents were asked “During the last three years has the firm applied for credit or asked for the renewal of terms on an existing loan?” In 1998, a narrower question limited to new loans was asked – “Did the firm apply for new loans in the last three years?” In 1993, 43 percent answered the question in the affirmative compared with 27 percent in 1998. Despite the fact that in 1993 the question was broader, the pattern of denials by race and sex is similar across the years. As can be seen below, minority-owned firms were especially likely to have their loan applications denied.

cards, trade credit, and equity injections; as well as the firm’s recent credit acquisition experiences. The survey also investigated the level of debt held by these firms and their accessibility to credit. Additionally, the survey collected information on firm and owner demographics, as well as the firm’s recent income statement and balance sheet.

²²⁹ Information on home and non-home equity or on the Dun & Bradstreet credit rating was not available in the 1993 survey.

Percentage of Loan Applications Denied		
	1993	1998
Non-minority males	26.2%	24.4%
African-Americans	65.9%	62.3%
Asians, Native Americans, etc.	39.9%	47.0%
Hispanics	35.9%	49.9%
Non-minority females	30.1%	23.5%
Overall	28.8%	28.6%

Similarly, the proportion of firms reporting that they did not apply for fear of being denied is similar by race, ethnicity and gender across the two years. More than half of African-American owners did not apply for a loan for fear of being denied compared with only one out of five non-minority males.

Percentage Not Applying for Fear of Denial		
	1993	1998
Non-minority males	22.5%	20.2%
African-Americans	60.7%	53.9%
Asians, Native Americans, etc.	27.5%	23.1%
Hispanics	41.5%	34.3%
Non-minority females	22.7%	24.2%
Overall	24.7%	23.3%

In the 1998 SSBF survey, respondents who were denied loans were asked if they believed there were reasons other than the official ones provided by their financial institution as to why their loan applications were turned down. Among numerous options provided were the following:

- a) Prejudice on a racial/ethnic basis.
- b) Prejudice against women.
- c) Prejudice against the business location.
- d) Prejudice against the business type.
- e) Prejudice or discrimination (not-specified or other).

Among firm owners who had applied for credit within the last three years and were denied, 34.1 percent believed there were reasons for their denial beyond the official explanation provided by the financial institution. Among non-minorities, 7.7 percent suspected some sort of prejudice. By contrast, the figure among minorities was 25.8 percent. Among owners who needed credit but did not apply for fear of denial, a similar pattern was observed. Only 1.7 percent of non-minorities believed prejudice was the reason, whereas among minorities the figure was 6.8 percent.

In Tables 6.8 and 6.9 the determinants of loan denial rates were estimated using data from the 1993 NSSBF. It was found that African-American-owned firms were almost twice as likely to have their loans denied than non-minority male-owned firms, even after controlling for a host of

variables included primarily to control for the possibility that minority-owned firms are smaller and less creditworthy than those owned by non-minority men.

A similar exercise is performed below in Tables 6.18 and 6.19 using data from the 1998 SSBF. Column (1) in Table 6.18 shows that African-American-owned firms in 1998 had a 42.2 percentage point higher probability of denial than non-minority male-owned firms before taking account of creditworthiness of the firm or any other characteristics. For 1993 the comparable figure was 44.3 percentage points. The addition of a large number of controls reduces the percentage point differential for African-Americans to 21.8 in Column (5) as the full set of controls is added. For 1993 the comparable figure was 24.1 percentage points.

The main difference between 1993 and 1998 is that now we find evidence that the probability of denial is significantly higher for Hispanic-owned firms as well. In Table 6.18 Column (5), Hispanic-owned firms have a 17.1 percentage point higher probability of being denied than non-minority male-owned firms. In Table 6.8, by contrast, denial probabilities for Hispanic-owned firms were *not* significantly different from those of non-minority male-owned firms. If anything, discrimination in the small business credit market appears to have expanded during the late 1990s.

Table 6.19 focusing on the MIDATL region yields similar results—showing significantly larger denial probabilities for African-American-, Asian-, and Hispanic-owned firms (23.5, 39.1, and 16.2 percentage points, respectively) than for non-minority male-owned firms. The MIDATL indicator was not significant in Table 6.19, nor were the interaction terms between MIDATL and race, ethnicity or gender, with the exception of Asians, indicating that the 1998 loan denial results for the MIDATL are not significantly different than for the nation as a whole.

Although tempered by the smaller sample size available, the quality of the experiment is somewhat better using the 1998 data than it was using the 1993 data due to the availability of an improved set of controls for the creditworthiness of the firm and its owner. In 1998, three new variables are included regarding the financial viability of the firm:

- a) The value of the equity, if any, in the owner's home.
- b) The owner's net worth excluding home equity and equity in the firm.
- c) The firm's 1999 Dun & Bradstreet credit rating in five categories (low, moderate, average, significant and high) indicating the likelihood of loan default.²³⁰

Despite the fact that these new variables do help to predict loan denials,²³¹ the estimated race differences including these variables are unchanged from those reported above.²³² This suggests

²³⁰ The D&B Commercial Credit Score Report predicts the likelihood of a company paying in a delinquent manner (90+ days past terms) during the next 12 months based on the information in D&B's file. The score is intended to help firms decide quickly whether to accept or reject accounts, adjust terms or credit limits, or conduct a more extensive review based on the report D&B provides. Firms can also determine the company's relative ranking among other businesses in the D&B database.

²³¹ The coefficients and t-statistics on the credit score variables when they were included alone in a U.S. loan denial model was as follows: moderate risk .228 (2.45), average risk= .295 (3.25); significant risk=.319 (3.28); high

that the large estimated differences in the denial probabilities that were estimated in 1993 were not biased significantly upwards by the fact that these variables were unavailable.

3. Effect of 1998 Survey Design Changes on Differences in Loan Denial Rates

The question we used to examine the 1998 data was somewhat narrower than the question used in the 1993 survey because it was changed by the survey designers. The 1998 question asked about new loans over the preceding three years, whereas the 1993 question covered all loans including renewals. Responses in 1998 were as follows:

Applied for New Loans Last Three Years	Number	Percent
Did not apply	2,599	73.0%
Always approved	713	20.0%
Always denied	166	4.7%
Sometimes approved/sometimes denied	83	2.3%
Total	3,561	100.0%

The dependent variable used in Tables 6.18 and 6.19 was set to one if the loan application was always denied and was set to zero if the application was always approved or sometimes approved/sometimes denied. An alternative dependent variable – *denylast* – is set to one if the application is always denied, set to zero if always approved. Those responding “sometimes approved/sometimes denied” are excluded from the analysis. Column (1) of Table 6.20 replicates Column (1) of Table 6.18 using *denylast* as the dependent variable with the smaller sub-sample. African-Americans, Hispanics, Asians and non-minority females are all confirmed to face higher denial rates than non-minority males using this specification. For African-Americans and Hispanics, the difference is 46 and 36 percentage points, respectively. For Asians, the difference is 19 percentage points, and for non-minority females, 8 percentage points.

Results consistent with discrimination are confirmed for African-Americans and Hispanics in Column (2) of Table 6.20 when a host of demographic and financial characteristics and geographic and industry indicators are included. When interaction terms for the MIDATL region are added to the model as in Column (3), results for minorities and non-minority females remain statistically significant. Neither the MIDATL indicator nor any of the interactions between MIDATL and race, ethnicity or gender is significant. In Column (4), however, both the MIDATL indicator and the Asian interaction term are significant and the non-minority female indicator becomes insignificant.

risk= .391 (3.53), n=924 pseudo r^2 =.0253. Excluded category ‘low risk’. Results were essentially unchanged when a control for MIDATL was included.

²³² This confirms the findings of Cavalluzzo, Cavalluzzo and Wolken (1999) who performed a similar exercise with the 1993 data.

4. Differences in Interest Rates, Credit Card Use, and Failure to Apply for Fear of Denial

Tables 6.21 through 6.23 provide confirmation from the 1998 survey of a number of other results from the 1993 survey reported above.

First, Table 6.21, which is similar to Tables 6.13 and 6.14, finds that conditional on obtaining a loan, African-Americans are charged a higher price for their credit—on average 1.06 percentage points nationally. These results are not significantly different in construction and construction-related industries either.²³³ African-Americans in the MIDATL appear to fare even worse in this regard than they do elsewhere in the country.

Table 6.22, which is similar to Table 6.15, shows that African-American owners are much more likely not to apply for a loan fearing they will be denied. Based on all of the foregoing evidence this is perhaps a sensible decision—if and when they do apply they are almost twice as likely as non-minority male-owned firms to have their application rejected. This is evident in the MIDATL as well and also in the construction and construction-related industries.²³⁴

Finally, Table 6.23, which is comparable to Tables 6.11 and 6.12, suggests that when the financial institution does not know the race or ethnicity of the applicant – as is often the case in an application for a credit card – there are no differences nationally by race or ethnicity in the usage for business purposes of either business or personal credit cards. There was also no evidence of any race effects in the use of business credit cards in the MIDATL region (row 3) or in construction (results not reported here).

Our confidence in the strength of our findings from the 1993 NSSBF survey is elevated by these findings from the 1998 SSBF survey, which strongly confirm the original results. Unfortunately, African-Americans continue to be discriminated against in the market for small business credit. By 1998, this discrimination appears to be on the increase for African-Americans and to be expanding to impact other minority groups, such as Hispanics and Asians, as well. This is an important market failure, and one which governments such as NYS cannot ignore if they are to avoid passive participation in a discriminatory marketplace.

H. Analysis of Credit Market Discrimination in the U.S. in 2003

More recently a new wave of the Survey of Small Business Finances was made available by the Board of Governors of the Federal Reserve System.²³⁵ This is the fourth survey of U.S. small businesses conducted by the Board of Governors since 1987. The survey gathered data from 4,072 firms selected to be representative of small businesses operating in the U.S. at the end of 2003. The survey covered a nationally representative sample of U.S. for profit, non-financial,

²³³ There is some indication that non-minority females nationally pay slightly less for their loans, but this difference is not quite statistically significant.

²³⁴ There is some evidence of this phenomenon for Hispanics nationally as well. However the coefficient of 0.052 in Row (2) of Table 6.22 is not quite statistically significant.

²³⁵ See www.federalreserve.gov/pubs/oss/oss3/ssbf03/ssbf03home.html.

non-subsidiary, nonagricultural, and nongovernmental businesses with fewer than 500 employees that were in operation at year end 2003 and at the time of interview. Most interviews took place between June 2004 and January 2005. The sample was drawn from the Dun & Bradstreet Market Identifier file. The numbers of employees varied from zero to 486 with a weighted median of 3.0 and weighted mean of 8.6.

Unfortunately, the 2003 SSBF did not over-sample minority-owned firms, as in the first three survey waves. According to survey staff, this was due to concerns that doing so would delay the survey timeline and reduce the overall response rate.²³⁶

In 1998 almost 8 percent of survey respondents were African-American, compared to slightly more than 3 percent in 2003. Hispanics were almost 7 percent in 1998 but less than 4 percent in 2003. Other minorities were 6.5 percent in 1998 but only 5.4 percent in 2003.²³⁷ Although the population weights were adjusted to accommodate these changes, even these weighted percentages are significantly smaller for minorities in 2003 than in 1998.²³⁸

Mach and Wolken (2006) reported using these data that 13.1% of firms were owned by non-White or Hispanic individuals; the share is statistically lower than in 1998 (14.6 percent). The shares for African-Americans and Asians each held roughly constant at 4%; the share of American Indians and Alaska natives held at roughly 1 percent. However the share of Hispanics fell a statistically significant amount from 5.6 percent to 4.2 percent which is somewhat surprising given the evidence that Hispanics are a growing share of the U.S. population – up from 12.5 percent in 2000 to 14.5 percent in 2005. The percentage of firms owned by females also declined from 72.0 percent to 64.8 percent.

Despite these drawbacks, our analysis of the 2003 SSBF yields results that are strongly consistent with those obtained from the 1993 and 1998 survey waves. The next section presents our findings from this analysis.²³⁹

1. Qualitative Evidence

Table 6.24 reports the results of asking business owners for the most important problem currently facing their firm. Consistent with the 1993 and 1998 surveys, firms owned by minority

²³⁶ See footnote 196, above.

²³⁷ The impact on women was not as pronounced. Females were 23.3 percent in 1998 and 20.9 percent in 2003. For non-minority females, the figures are 17.8 percent in 1998 and 18.2 percent in 2003.

²³⁸ Mach and Wolken (2006, Table 2) report that weighted figures for African-Americans were 4.1 percent in 1998 and 3.7 percent in 2003. Hispanics were 5.6 and 4.2 percent, respectively. Asians and Pacific Islanders were 4.4 and 4.2 percent, respectively. Native Americans were 0.8 and 1.3 percent, respectively, and women were 24.3 and 22.4 percent, respectively.

²³⁹ The data file provided by the Board of Governors includes five separate observations per firm. That is to say there are $4240 \times 5 = 21,200$ observations. These so-called multiple imputations are done via a randomized regression model, and are included because where there are missing observations several alternative estimates are provided. Where values are not missing the values for each of the five imputations are identical. We make use of the data from the first imputation: the results presented here are essentially identical whichever imputation is used. Overall only 1.8 percent of observations in the data file were missing.

and women-owned firms were more likely to say that their most important problem was “financing and interest rates.” Once again the African-American/non-minority difference was most pronounced—only slightly more than 5 percent of non-minority male business owners reported this as their major problem compared to almost 21 percent of African-American business owners.

2. Differences in Loan Denial Rates by Race/Ethnicity

Tables 6.25 and 6.26 present estimates of loan denial probabilities for the nation as a whole and for the MIDATL using a regression model comparable to that which was used with the 1993 and 1998 survey waves.²⁴⁰

Column (1) in Table 6.25 (comparable to Table 6.8 for 1993 and 6.18 for 1998) shows that African-American-owned firms in 2003 had a 45.9 percentage point higher probability of denial than non-minority male-owned firms before taking account of creditworthiness of the firm or any other characteristics. The addition of a large number of controls reduces the percentage point differential for African-Americans to 9.4 in Column (5) as the full set of controls is added. The coefficients in Column (5) for non-minority females and other minority groups are not significant however.

Table 6.26 (comparable to Table 6.9 for 1993 and 6.19 for 1998) focuses on the MIDATL division yields similar results—showing significantly larger denial probabilities for African-American-owned firms than for non-minority male-owned firms. The MIDATL indicator as well as the race and gender interaction terms with the MIDATL are also insignificant.

3. Differences in Interest Rates, Credit Card Use, and Failure to Apply for Fear of Denial

Table 6.27 models the interest rate charged for those minority-owned and non-minority female-owned firms that were able to successfully obtain a loan (comparable to Tables 6.13 and 6.14 for 1993 and Table 6.21 for 1998). As was found in earlier surveys, African-American business owners are hurt here as well since they have to pay, nationally on average, 1.05 percentage points more for their loans than non-minority male business owners with identical characteristics. Hispanic business owners, as well, pay 0.99 percentage points more, nationally on average, than their non-minority male counterparts have to pay.

The loan price differential is present for African-American and Hispanic business owners in the MIDATL as well. According to the results in Table 6.27, Hispanic business owners in the MIDATL may pay 1.4 percentage points more for their loans, on average, than comparable non-minority males. For African Americans, the differential is 3.1 percentage points but is not strongly significant.

²⁴⁰ In 2003, the credit application question was changed from 1998 to once again include requests for renewals as well as new loans, making it comparable to the 1993 version.

Table 6.28 reports the results of estimating a model where the dependent variable is whether a business or personal credit card is used to pay business expenses (comparable to Tables 6.11 and 6.12 for 1993 and Table 6.23 for 1998). As noted above, the application procedure for business and personal credit cards is usually automated and not conducted face-to-face. If there were missing variables such as creditworthiness or some such characteristic unobserved to the econometrician, then the race and ethnicity indicator variables should enter significantly in these equations. There is some evidence nationally in 2003 that African-Americans are less likely to use personal credit cards for business expenses. However, this result is not observed for business credit cards.

Finally, consistent with earlier results, Table 6.29 (comparable to Tables 6.15 for 1993 and 6.22 for 1998), shows that African-American owners are much more likely not to apply for a loan fearing they will be denied. Even after controlling for a host of demographic, financial, geographic, and industry factors, African-American business owners are still almost 17 percentage points more likely to fail to apply for loans for fear of denial—even though they need the credit.

In the MIDATL division the phenomenon is evident as well—African-American business owners are 14 percentage points more likely to fail to apply for fear of denial. In construction and related industries, the trend is even more pronounced at 30.3 percentage points. There is evidence of this phenomenon for non-minority female business owners as well in the nation as a whole.

I. Further Analysis of Credit Market Discrimination: NERA Surveys 1999-2007

NERA has conducted local credit market surveys at nine times and places across the country since 1999. These include the Chicago metropolitan area in 1999, the State of Maryland²⁴¹ in 2000, the Jacksonville, Florida metropolitan area in 2002, the Baltimore-Washington, DC metropolitan area in 2003, the St. Louis metropolitan area in 2004, the Denver metropolitan area in 2005, the State of Maryland (again) in 2005,²⁴² the State of Massachusetts in 2005, and the Memphis, TN-MS-AR metropolitan area in 2007. The Chicago, Jacksonville, Baltimore, St. Louis, and Denver surveys focused on construction and construction-related industries, while the two Maryland surveys, the Massachusetts surveys and the Memphis surveys included other goods and services as well.

Our Chicago, Maryland I, and Jacksonville survey questionnaires followed the format of the 1993 NSSBF while our Baltimore, St. Louis, Denver, Maryland II, Massachusetts, and Memphis surveys followed the format of the 1998 SSBF questionnaire.

²⁴¹ Including the District of Columbia, the State of Delaware, and the portion of Virginia within the Baltimore-Washington Metropolitan Area.

²⁴² Including (again) the District of Columbia, the State of Delaware, and the portion of Virginia within the Baltimore-Washington Metropolitan Area.

As a final check on our findings in this chapter, we combined the results of these nine NERA surveys together in a consistent format and re-estimated the basic loan denial model on this larger file. These results appear below in Table 6.30, and are remarkably similar to results seen in Tables 6.8-6.9, 6.18-6.19, and 6.25-6.26. Denial probabilities for African-American-owned firms compared to non-minority male-owned firms are 29 percentage points higher—even when creditworthiness controls, other firm and owner characteristics, and interaction terms are included.

Moreover, the NERA surveys found statistically significant loan denial disparities for Hispanic-owned firms and non-minority female-owned firms as well. Denial rates were 18-24 percentage points higher for Hispanic-owned firms and 5-9 percentage points higher for non-minority female-owned firms than for their non-minority male-owned counterparts. Significant loan denial disparities were also observed for Native American-owned firms in some cases (18 percentage points higher).

Finally, as shown in Table 6.31, we modeled the rate of interest charged, conditional upon receiving loan approval, using our nine-jurisdiction dataset. Results are very similar to that observed in Tables 6.13-6.14, 6.21 and 6.27. African-Americans pay almost 1.7 percentage points more, on average, for their business credit than do non-minority males, declining to 1.5 percentage points when creditworthiness and other firm and owner controls are accounted for.

On the basis of the foregoing, we conclude that the evidence of credit discrimination from NERA's nine local credit market surveys conducted throughout the nation between 1999-2007 is entirely consistent with the results obtained using data from the 1993 NSSBF, the 1998 SSBF, and the 2003 SSBF.

J. Conclusions

The results presented in this chapter indicate that African-American-owned firms face serious obstacles in obtaining credit that are unrelated to their creditworthiness, industry, or geographic location. In a number of cases this is true as well for Hispanic-owned firms, Asian-owned firms, Native American-owned firms, and non-minority female-owned firms.

As in any regression-based study, our analysis hinges upon the proposition that all the factors that are related to loan denial rates have been included in our statistical model. If, for example, African-American business owners possess some unobservable characteristic that makes them less creditworthy, then our statistical finding would overstate the difference in loan denial rates. To check on this possibility, the models we have estimated include an extensive array of factors that could conceivably affect loan decisions. Moreover, we have also estimated several alternative specifications that could potentially identify the impact of such a bias. Moreover, we have conducted our own surveys on numerous occasions and in numerous places across the U.S. Throughout, we have consistently found that African-Americans and often other minorities as well are disadvantaged in the small business credit market and that our specification tests support the interpretation of discrimination.

Another potential criticism is that this study has examined loan denial rates rather than loan default rates; some have claimed that the latter provides a more appropriate strategy for identifying discrimination. For example, if banks only approve loans for relatively good African-American firms then African-American firms should exhibit relatively low default rates. Such an approach has several significant shortcomings that are detailed in Browne and Tootell (1995) and Ladd (1998). For instance, one problem is that it relies on the distribution of default probabilities being similar for African-American and non-minority applicants meeting the acceptance standard used for non-minority firms. A further problem is that it assumes that the loan originators know with a high degree of precision what determines defaults, however little hard information exists on what causes default. Additionally, it would be hard to disentangle the factors associated with differences in default rates between non-minority- and African-American-owned firms given the fact that the African-American-owned firms which obtain credit are typically charged higher interest rates, as we have demonstrated. Finally, such an analysis would require longitudinal data, tracking firms for several years following loan origination. Such data does not exist. While we have highlighted the potential limitations of such an analysis, we believe that it would be fruitful for this sort of longitudinal data collection to take place and for future research to investigate this question more fully.

In addition, many of the criticisms levied against the home mortgage loan discrimination study of Munnell et al. (1996) could perhaps be used here as well. Yet these criticisms appear to have been effectively countered by, for example, Browne and Tootell (1995) and Tootell (1996). What is important to keep in mind in reference to this work compared with Munnell et al. (1996) is the magnitude of the estimated racial disparity. The absolute size of the raw racial differences found in the mortgage study is considerably smaller than those observed in this study regarding business credit.²⁴³

The magnitude of the racial difference in small business loan approval rates is substantial, even after controlling for observed differences in creditworthiness, and considerably larger than that found in the analysis of discrimination in mortgage markets. Why do the results for small business loans differ so markedly from those obtained from mortgage loans? First, many mortgages are sold in the secondary market and a substantial fraction of mortgage lenders have little intention of keeping the loans they make. This added “distance” in the transaction might reduce the likelihood of discrimination. As Day and Liebowitz (1998, p.6) point out, “economic self-interest, therefore, should reduce racial discrimination in this market more completely than in many others.” A highly sophisticated secondary market for loans to small firms does not exist. Second, the presence of special programs and regulatory incentives to encourage banks and others to increase their mortgage lending to minorities gives these groups some advantages in obtaining a mortgage.

Clearly, a portion of the difference in denial rates between non-minority males and other groups in both types of studies appears to be due to differences in the characteristics of the applicants.

²⁴³ In the Boston Fed study 10 percent of non-minority mortgage applications were rejected compared with 28 percent for African-Americans. Loan denial rates (weighted) for business credit in this study ranged from 8.3 to 26.2 percent for non-minority males and between 50.0 and 65.9 percent for African-American-owned firms (depending on which NSSBF or SSBF survey is used).

Even after controlling for these differences, however, the gap in denial rates in the small business credit market is considerably larger than that found in the mortgage market.²⁴⁴

Our analysis finds significant evidence that African-American-owned businesses face impediments to obtaining credit that go beyond observable differences in their creditworthiness. These firms are more likely to report that credit availability was a problem in the past and expect it to be a problem in the future. In fact, these concerns prevented more African-American-owned firms from applying for loans because they feared being turned down due to prejudice or discrimination. We also found that loan denial rates are significantly higher for African-American-owned firms than for non-minority male-owned firms even after taking into account differences in an extensive array of measures of creditworthiness and other characteristics. This result appears to be largely insensitive to geographic location or to changes in econometric specification. Comparable findings are observed for other minority business owners and for non-minority women as well, although not with as much consistency as the findings for African-Americans.

Overall, the evidence is strong that African-American-owned firms and often other M/WBE firms as well face large and statistically significant disadvantages in the market for small business credit. The larger size and significance of the effects found in our analyses (compared to mortgage market analyses) significantly reduces the possibility that the observed differences can be explained away by some quirk of the econometric estimation procedure and, instead, strongly suggests that the observed differences are due to discrimination.

²⁴⁴ The gap in denial rates between African-Americans and non-minorities with similar characteristics is between 34-46 percentage points in the small business credit market compared with 7 percentage points in the mortgage market.

K. Tables

Table 6.1. Selected Population-Weighted Sample Means of Loan Applicants – USA, 1993

	All	Non-minority	African-American	Hispanic	Other Races
% of Firms Denied in the Last Three Years	28.8	26.9	65.9	35.9	39.9
<i>Credit History of Firm/Owners</i>					
% Owners with Judgments Against Them	4.8	4.1	16.9	5.2	15.2
% Firms Delinquent in Business Obligations	24.2	23.1	49.0	25.1	31.6
% Owners Delinquent on Personal Obligations	14.0	12.6	43.4	14.8	24.5
% Owners Declared Bankruptcy in Past 7yrs	2.4	2.4	5.3	2.0	0.8
<i>Other Firm Characteristics</i>					
% Female-Owned	17.9	18.1	18.2	9.7	23.1
Sales (in 1,000s of 1992 \$)	1795.0	1870.6	588.6	1361.3	1309.1
Profits (in 1,000s of 1992 \$)	86.7	84.5	59.9	189.5	54.0
Assets (in 1,000s of 1992 \$)	889.4	922.5	230.3	745.6	747.3
Liabilities (in 1,000s of 1992 \$)	547.4	572.8	146.2	308.6	486.0
Owner's Years of Experience	18.3	18.7	15.3	15.9	14.9
Owner's Share of Business	77.1	76.5	86.4	83.9	77.1
% ≤ 8 th Grade Education	0.8	0.7	0.0	3.4	1.0
% 9 th -11 th Grade Education	2.2	2.2	3.7	1.8	1.2
% High School Graduate	19.6	19.7	12.8	27.7	14.9
% Some College	28.0	28.3	36.0	20.6	19.8
% College Graduate	29.2	29.2	28.0	24.1	36.5
% Postgraduate Education	20.2	19.9	19.5	22.3	26.6
% Line of credit	48.7	49.1	35.8	52.8	43.7
Total Full-time Employment in 1990	11.4	11.8	6.8	9.3	8.8
Total Full-time Employment in 1992	13.6	13.9	8.3	10.8	12.3
Firm age, in years	13.4	13.6	11.5	13.3	9.3
% New Firm Since 1990	9.4	9.4	13.0	6.4	9.5
% Firms Located in MSA	76.5	75.1	91.2	90.7	85.7
% Sole Proprietorship	32.8	32.3	48.6	38.2	24.2
% Partnership	7.8	7.8	7.7	6.7	7.9
% S Corporation	26.1	27.1	11.7	13.7	27.1
% C Corporation	33.4	32.8	32.1	41.4	40.8
% Existing Relationship with Lender	24.6	24.7	12.8	29.6	25.7
% Firms with Local Sales Market	54.1	54.7	42.9	55.0	47.4
<i>Characteristics of Loan Application</i>					
Amount Requested (in 1,000s of 1992\$)	300.4	310.8	126.5	179.1	310.5
% Loans to be Used for Working Capital	8.4	8.8	4.9	4.6	5.5
% Loans to be Used for Equipment/Machinery	2.3	2.4	1.7	0.2	0.6
% Loans to be Used for Land/Buildings	0.4	0.4	0.9	0.0	0.0
% Loan to be Backed by Real Estate	28.3	28.6	24.7	26.2	24.7
Sample Size (unweighted)	2,007	1,648	170	96	93

Source: NERA calculations from 1993 NSSBF.

Notes: Sample weights are used to provide statistics that are nationally representative of all small businesses. Sample restricted to firms that applied for a loan over the preceding three years.

Table 6.2. Selected Sample Means of Loan Applicants – MIDATL, 1993

	All	Non-minority	African-American	Hispanic	Other Races
% of Firms Denied in the Last Three Years	36.1	34.2	60.4	65.2	49.9
<i>Credit History of Firm/Owners</i>					
% Owners with Judgments Against Them	3.6	3.1	7.2	13.5	8.3
% Firms Delinquent in Business Obligations	27.4	27.6	27.7	27.3	21.2
% Owners Delinquent on Personal Obligations	14.3	13.7	24.8	27.3	10.6
% Owners Declared Bankruptcy in Past 7yrs	1.5	1.4	1.9	0.0	8.3
<i>Other Firm Characteristics</i>					
% Female-Owned	16.1	16.4	17.4	0.0	29.5
Sales (in 1,000s of 1992 \$)	2044.8	2139.0	571.7	373.7	1905.6
Profits (in 1,000s of 1992 \$)	181.7	186.8	195.5	34.5	183.7
Assets (in 1,000s of 1992 \$)	988.1	1039.7	374.3	98.2	706.6
Liabilities (in 1,000s of 1992 \$)	677.3	711.7	303.1	99.7	436.4
Owner's Years of Experience	18.7	19.2	11.8	13.6	13.7
Owner's Share of Business	77.5	77.6	81.0	77.3	71.9
% ≤ 8 th Grade Education	0.2	0.0	0.0	0.0	10.6
% 9 th -11 th Grade Education	2.9	3.0	7.2	0.0	0.0
% High School Graduate	14.9	15.1	23.3	7.1	10.6
% Some College	31.7	32.6	4.3	34.4	10.6
% College Graduate	34.8	34.4	36.9	33.8	51.6
% Postgraduate Education	15.4	14.8	28.3	24.7	16.6
% Line of credit	43.6	43.9	48.4	41.5	30.4
Total Full-time Employment in 1990	12.0	12.3	8.1	5.5	10.7
Total Full-time Employment in 1992	14.1	14.2	9.3	4.4	28.9
Firm age, in years	13.8	14.1	10.6	11.7	8.9
% New Firm Since 1990	11.4	12.0	7.2	0.0	8.3
% Firms Located in MSA	86.3	85.2	100.0	100.0	100.0
% Sole Proprietorship	26.3	26.0	21.3	48.6	10.6
% Partnership	9.1	9.2	20.5	7.1	0.0
% S Corporation	33.7	34.1	11.7	34.4	31.1
% C Corporation	30.9	30.7	46.5	9.8	58.3
% Existing Relationship with Lender	24.0	25.3	4.3	7.1	8.3
% Firms with Local Sales Market	55.7	57.1	25.6	27.7	62.8
<i>Characteristics of Loan Application</i>					
Amount Requested (in 1,000s of 1992\$)	258.0	265.1	339.1	27.0	254.8
% Loans to be Used for Working Capital	9.6	9.8	10.7	10.5	0.0
% Loans to be Used for Equipment/Machinery	4.5	4.8	0.0	0.0	0.0
% Loans to be Used for Land/Buildings	1.2	1.3	0.0	0.0	0.0
% Loan to be Backed by Real Estate	39.2	40.0	18.9	41.5	16.6
Total Sample Size (unweighted)	241	205	16	9	11

Source and Notes: See Table 6.1.

Table 6.3. Problems Firms Experienced During Preceding 12 Months - USA, 1993

	All	Non-minority	African-American	Hispanic	Other Races
<i>Credit Market Conditions</i>					
Percent reporting not a problem	66.2	67.3	43.1	58.9	65.8
Percent reporting somewhat of a problem	20.1	19.9	25.6	18.2	21.3
Percent reporting serious problem	13.7	12.7	31.3	22.9	12.9
<i>Other Potential Problems (% reporting problem is serious)</i>					
Training costs	6.5	6.6	7.2	6.3	4.3
Worker's compensation costs	21.7	21.0	19.3	30.6	28.7
Health insurance costs	32.5	31.6	38.1	44.3	35.0
IRS regulation or penalties	12.3	11.8	17.1	17.9	13.2
Environmental regulations	8.5	8.5	5.6	7.4	11.0
Americans with Disabilities Act	2.7	2.6	3.6	2.7	3.9
Occupational Safety and Health Act	4.5	4.5	3.9	3.6	6.2
Family and Medical Leave Act	2.7	2.5	4.5	3.1	4.8
Number of observations (unweighted)	2,007	1,648	170	96	93

Source: See Table 6.1.

Table 6.4. Problems Firms Experienced During Preceding 12 Months – MIDATL, 1993

	All	Non-minority	African-American	Hispanic	Other Races
<i>Credit Market Conditions</i>					
Percent reporting not a problem	63.5	63.7	58.9	59.8	64.3
Percent reporting somewhat of a problem	20.5	20.5	21.9	10.5	28.5
Percent reporting serious problem	16.1	15.8	19.1	29.8	7.2
<i>Other Potential Problems (% reporting problem is serious)</i>					
Training costs	5.1	4.8	3.9	15.7	2.3
Worker's compensation costs	20.4	20.8	7.9	31.1	4.5
Health insurance costs	38.2	38.9	33.7	44.2	13.5
IRS regulation or penalties	9.9	9.3	11.1	28.2	6.3
Environmental regulations	6.2	6.6	1.1	0.0	2.3
Americans with Disabilities Act	1.2	1.3	0.0	1.9	0.0
Occupational Safety and Health Act	4.4	4.8	0.0	0.0	0.0
Family and Medical Leave Act	1.9	1.8	2.8	5	3.1
Number of observations (unweighted)	600	480	52	32	36

Source: See Table 6.1.

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Table 6.5. Percentage of Firms Reporting Most Important Issues Affecting Them Over the Next 12 Months - USA, 1993

	All	Non-minority	African-American	Hispanic	Other Races
Credit availability	5.9	5.5	20.5	5.3	4.3
Health care, health insurance	21.1	22.1	12.3	13.7	14.8
Taxes, tax policy	5.7	5.7	2.6	8.7	3.3
General U.S. business conditions	11.8	11.5	8.9	14.4	17.4
High interest rates	5.4	5.7	1.8	3.5	3.4
Costs of conducting business	3.3	3.3	3.8	3.8	3.6
Labor force problems	3.5	3.3	3.9	5.5	3.6
Profits, cash flow, expansion, sales	10.3	9.9	20.3	9.8	11.9
Number of observations (unweighted)	4,388	3,383	424	262	319

Source: See Table 6.1.

Table 6.6. Percentage of Firms Reporting Most Important Issues Affecting Them Over the Next 12 Months – MIDATL, 1993

	All	Non-minority	African-American	Hispanic	Other Races
Credit availability	5.6	5.6	10.3	4.1	3.7
Health care, health insurance	23.8	23.9	12.7	22.2	30.0
Taxes, tax policy	6.5	6.8	4.1	5.1	2.4
General U.S. business conditions	13.3	12.8	13.6	17.3	23.6
High interest rates	6.1	6.5	5.8	0.0	0.0
Costs of conducting business	3.3	3.2	8.3	2.0	3.9
Labor force problems	2.8	2.5	0.0	12.9	2.4
Profits, cash flow, expansion, sales	8.1	7.8	30.2	4.6	4.2
Number of observations (unweighted)	570	459	50	27	34

Source: See Table 6.1.

Table 6.7. Types of Problems Facing Your Business, by Race and Gender – USA, 2005 (%)

	Non-minority male	Non-minority Female	Minority Male	Minority Female	African-American	Hispanic	Asian
Availability of credit	19	23	54	38	46	52	34
Rising health care costs	60	49	50	41	31	42	66
Excessive tax burden	49	46	48	42	46	34	51
Lack of qualified workers	37	28	33	17	22	20	34
Rising energy costs	37	35	36	35	29	34	44
Rising costs of materials	44	47	36	47	53	42	32
Legal reform	21	15	15	12	11	10	17
Number firms	415	356	80	81	55	50	41

Source: U.S. Chamber of Commerce (2005), Appendix tables, page 55, available at http://www.uschamber.com/publications/reports/access_to_capital.htm.

Note: Total percentages may be greater than 100% due to respondents having the option to select multiple choices. Minorities also include 14 firms owned by Native Americans.

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Table 6.8. Determinants of Loan Denial Rates – USA, 1993

	(1)	(2)	(3)	(4)	(5)
African-American	0.443 (11.21)	0.288 (6.84)	0.237 (5.57)	0.235 (5.22)	0.241 (5.13)
Asian	0.225 (4.21)	0.171 (3.18)	0.140 (2.56)	0.121 (2.15)	0.119 (2.07)
Native American	-0.016 (0.11)	-0.141 (1.06)	-0.097 (0.71)	-0.052 (0.35)	-0.083 (0.56)
Hispanic	0.129 (2.62)	0.070 (1.42)	0.067 (1.36)	0.035 (0.70)	0.031 (0.63)
Non-minority Female	0.088 (2.65)	0.048 (1.45)	0.047 (1.45)	0.036 (1.06)	0.033 (0.94)
Judgments		0.143 (2.84)	0.129 (2.56)	0.124 (2.40)	0.121 (2.29)
Firm delinquent		0.176 (6.50)	0.178 (6.43)	0.195 (6.77)	0.208 (7.00)
Personally delinquent		0.161 (4.45)	0.128 (3.56)	0.124 (3.38)	0.119 (3.17)
Bankrupt past 7 yrs		0.208 (3.11)	0.179 (2.68)	0.162 (2.37)	0.167 (2.33)
\$1992 profits (*10 ⁸)		-0.000 (0.89)	-0.000 (1.64)	-0.000 (1.78)	-0.000 (1.83)
\$1992 sales (*10 ⁸)		-0.000 (3.08)	-0.000 (3.38)	-0.000 (3.28)	-0.000 (3.38)
\$1992 assets (*10 ⁸)		0.000 (0.51)	0.000 (0.60)	0.000 (0.40)	0.000 (0.37)
\$1992 liabilities (*10 ⁸)		0.000 (0.61)	0.000 (1.11)	0.000 (1.04)	0.000 (1.17)
Owner years experience		-0.003 (2.59)	-0.001 (1.30)	-0.002 (1.55)	-0.002 (1.72)
Owners' share of business		0.001 (1.91)	0.000 (0.71)	0.000 (0.26)	0.000 (0.30)
Owner's Education (5 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (13 variables)	No	No	Yes	Yes	Yes
Region (8 indicator variables)	No	No	No	Yes	Yes
Industry (60 indicator variables)	No	No	No	Yes	Yes
Month /Year of Application (51 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (16 indicator vars.)	No	No	No	No	Yes
N	2,007	2,007	2,006	1,985	1,973
Pseudo R ²	.0608	.1412	.2276	.2539	.2725
Chi ²	143.6	333.4	537.3	595.4	635.8
Log likelihood	-1108.8	-1013.8	-911.6	-874.8	-848.7

Source: See Table 6.1.

Notes: Reported estimates are derivatives from Probit models, t-Statistics are in parentheses. "Other firm characteristics" include variables indicating whether the firm had a line of credit, 1990 employment, firm age, metropolitan area, a new firm since 1990, legal form of organization (sole proprietorship, partnership, S-corporation, or C-corporation), 1990-1992 employment change, existing long run relation with lender, geographic scope of market (local, regional, national or international), the value of the firm's inventory, the level of wages and salaries paid to workers, the firm's cash holdings, and the value of land held by the firm. "Characteristics of the loan" include the size of the loan applied for, a variable indicating whether the loan was backed by real estate, and twelve variables indicating the intended use of the loan.

Table 6.9. Determinants of Loan Denial Rates – MIDATL Region, 1993

	(1)	(2)	(3)	(4)	(5)
African-American	0.444 (10.68)	0.280 (6.29)	0.226 (5.05)	0.224 (4.76)	0.220 (4.52)
Asian	0.226 (3.93)	0.170 (2.96)	0.144 (2.45)	0.125 (2.05)	0.126 (2.02)
Native American	-0.012 (.08)	-0.139 (1.04)	-0.098 (.72)	-0.057 (.39)	-0.086 (.59)
Hispanic	0.122 (2.35)	0.059 (1.15)	0.055 (1.07)	0.012 (.24)	0.010 (.19)
Non-minority Female	0.080 (2.27)	0.037 (1.06)	0.027 (.79)	0.013 (.38)	0.014 (.39)
African-American*MIDATL	0.002 (.02)	0.066 (.55)	0.080 (.67)	0.064 (.54)	0.152 (1.13)
Asian/Pacific*MIDATL	-0.006 (.04)	0.003 (.02)	-0.033 (.26)	-0.025 (.19)	-0.036 (.27)
Native American*MIDATL					
Hispanic*MIDATL	0.078 (.49)	0.107 (.65)	0.098 (.61)	0.205 (1.16)	0.217 (1.18)
Non-minority Female*MIDATL	0.086 (.8)	0.105 (.98)	0.207 (1.79)	0.212 (1.78)	0.173 (1.44)
MIDATL region	0.033 (.91)	0.036 (.97)	0.009 (.23)	0.030 (.65)	0.038 (.81)
Creditworthiness controls (4 variables)	No	Yes	Yes	Yes	Yes
Owner's Education (5 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (13 variables)	No	No	Yes	Yes	Yes
Region (7 indicator variables)	No	No	No	Yes	Yes
Industry (60 indicator variables)	No	No	No	Yes	Yes
Month /Year of Application (51 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (16 indicator vars.)	No	No	No	No	Yes
N	2,007	2,007	2,006	1,985	1,973
Pseudo R ²	0.062	0.1432	0.2298	0.2558	0.2743
Chi ²	146.47	338.13	542.46	599.73	640.11
Log likelihood	-1107.3	-1011.5	-909	-872.6	-846.6

Source: See Table 6.1.

Note: Creditworthiness controls are those used in Table 6.8 above.

Table 6.10. Alternative Models of Loan Denials, 1993

Specification	African-American	African-American* MIDATL	Asian	Hispanic	Non-minority Female	Sample Size
All	0.226 (5.05)	0.080 (.67)	0.144 (2.45)	0.055 (1.07)	0.027 (.79)	2,006
<i>Organization Type</i>						
1) Proprietorships and Partnerships	0.262 (3.21)	-0.053 (.22)	0.275 (2.4)	0.057 (.63)	-0.026 (.38)	536
2) Corporations	0.181 (3.37)	0.193 (1.25)	0.105 (1.48)	0.045 (.68)	0.048 (1.19)	1,457
<i>Age of Firm</i>						
3) 12 Years or Under	0.234 (3.74)	0.209 (1.57)	0.310 (2.58)	0.024 (.31)	0.012 (.23)	1,074
4) Over 12 Years	0.221 (3.25)	0.024 (.52)	-0.061 (.28)	0.100 (1.36)	0.084 (1.61)	924
<i>1993 Firm Size</i>						
5) Fewer than 10 Employees	0.241 (3.87)	0.148 (.05)	-0.009 (1.71)	0.054 (.73)	-0.000 (0)	868
6) 10 or More Employees	0.208 (2.94)	0.143 (.57)	0.096 (1.65)	0.082 (1.03)	0.068 (1.41)	1,131
<i>Intended Use of Loan</i>						
7) Working Capital	0.259 (4.52)	0.058 (.4)	0.105 (1.38)	-0.021 (.31)	0.046 (.95)	1,086
8) Other Use	0.169 (2.31)	0.006 (.03)	0.204 (2.2)	0.148 (1.83)	0.013 (.27)	917
<i>Scope of Sales Market</i>						
9) Local	0.139 (2.06)	—	0.164 (6.53)	-0.001 (.04)	0.039 (.)	871
10) Regional, National, or international	0.209 (5.06)	-0.028 (.48)	0.062 (1.19)	0.074 (1.47)	0.011 (.41)	1,129
<i>Creditworthiness</i>						
11) No Past Problems	0.194 (3.40)	0.250 (1.55)	0.211 (3.35)	0.018 (.38)	0.057 (1.72)	1,386
12) One Past Problem	0.290 (2.93)	-0.247 (.69)	-0.102 (.62)	0.243 (1.62)	-0.019 (.19)	375
13) More Than One Problem	0.276 (2.52)	0.124 (.37)	0.124 (.37)	0.235 (1.42)	-0.052 (.27)	230

Source: See Table 6.1.

Notes: Reported estimates are derivatives from Probit models, t-Statistics are in parentheses. Each line of this table represents a separate regression with the same control variables as Column (3) of Table 6.8. The dependent variable in all specifications represents an indicator for whether or not a loan application was denied. Control for MIDATL also included.

Table 6.11. Models of Credit Card Use – USA, 1993

Specification	African-American	Asian	Native American	Hispanic	Non-minority Female	Sample Size
1) Business Credit Card	0.035 (1.35)	-0.096 (3.23)	0.085 (1.00)	0.024 (0.79)	0.018 (0.83)	4,633
2) Personal Credit Card	0.019 (0.74)	-0.019 (0.63)	0.019 (0.23)	-0.042 (1.40)	0.028 (1.28)	4,633

Source: See Table 6.1.

Notes: Reported estimates are derivatives from Probit models, t-statistics are in parentheses. Each line of this table represents a separate regression with the same control variables as Column (3) of Table 6.8 but excluding the loan characteristics. The dependent variable indicates whether the firm used business or personal credit cards to finance business expenses. In all specifications, the sample size is all firms. Other races are excluded due to sample size limitations.

Table 6.12. Models of Credit Card Use – MIDATL, 1993

Specification	African-American	Asian	Native American	Hispanic	Non-minority Female	Sample Size
1) Business Credit Card	0.034 (1.24)	-0.097 (3.09)	0.084 (.99)	0.038 (1.17)	0.015 (.65)	4,633
2) Personal Credit Card	0.017 (.63)	-0.013 (.41)	0.013 (.16)	-0.048 (1.51)	0.015 (.65)	4,633

Source: See Table 6.1.

Notes: See Table 6.11. Control for MIDATL included.

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Table 6.13. Models of Interest Rate Charged – USA, 1993

Specification	African-American	Asian	Native American	Hispanic	Non-minority Female	Sample Size
1) All loans (controls as in Column 5, Table 6.8)	1.034 (3.72)	0.413 (1.37)	-0.427 (0.63)	0.517 (1.97)	0.025 (0.14)	1,454
<i>Creditworthiness</i>						
2) No credit problems	1.187 (3.27)	0.485 (1.33)	0.910 (1.07)	0.435 (1.48)	0.129 (0.66)	1,137
<i>Organization Type</i>						
3) Proprietorships and Partnerships	1.735 (2.57)	0.826 (1.03)	2.589 (0.9)	1.008 (1.74)	-0.239 (0.53)	364
4) Corporations	0.660 (2.04)	0.359 (1.07)	-0.585 (0.86)	0.491 (1.53)	0.127 (0.66)	1,090
<i>1993 Firm Size</i>						
5) Fewer than 10 Employees	1.200 (2.58)	-0.247 (0.41)	-0.010 (0.01)	0.783 (1.75)	-0.311 (1.02)	574
6) 10 or More Employees	0.450 (1.15)	0.446 (1.21)	-0.197 (0.25)	0.515 (1.37)	0.164 (0.77)	880
<i>Scope of Sales Market</i>						
7) Local	0.751 (1.55)	-0.073 (0.13)	1.773 (1.12)	0.805 (2.05)	0.324 (1.08)	633
8) Regional, National, or International	1.544 (4.26)	1.185 (2.93)	-1.368 (1.85)	0.392 (0.96)	-0.163 (0.73)	821

Source: See Table 6.1.

Notes: Reported estimates are Ordinary Least Squares (OLS) coefficients, t-statistics in parentheses. Each line of this table represents a separate regression with all of the control variables as Column (5) of Table 6.8 (except where specified) as well as: an indicator variable for whether the loan request was for a fixed interest rate loan, the length of the loan, the size of the loan, whether the loan was guaranteed, whether the loan was secured by collateral, and 7 variables identifying the type of collateral used if the loan was secured. The sample consists of firms who had applied for a loan and had their application approved. ‘No credit problems’ means that neither the firm nor the owner had been delinquent on payments over 60 days, no judgments against the owner for the preceding 3 years and the owner had not been bankrupt in the preceding 7 years.

Table 6.14. Models of Interest Rate Charged – MIDATL, 1993

Specification	African-American	African-American * MIDATL	Asian	Native American	Hispanic	Non-minority Female	Sample Size
1) All loans (controls as in Column 5, Table 6.8)	0.950 (3.29)	1.031 (1.11)	0.423 (1.3)	-0.410 (.6)	0.615 (2.24)	0.092 (.52)	1,454
<i>Creditworthiness</i>							
2) No credit problems	1.199 (3.2)	-0.473 (.33)	0.449 (1.11)	0.924 (1.08)	0.622 (2.04)	0.175 (.87)	1,137
<i>Organization Type</i>							
3) Proprietorships and Partnerships	1.927 (2.67)	-1.778 (.86)	0.979 (1.16)	2.771 (.96)	1.004 (1.6)	-0.091 (.19)	364
4) Corporations	0.575 (1.72)	1.153 (1.01)	0.301 (.81)	-0.592 (.87)	0.513 (1.55)	0.136 (.67)	1,090
<i>1993 Firm Size</i>							
5) Fewer than 10 Employees	1.192 (2.47)	0.056 (.03)	-0.090 (.14)	0.027 (.02)	0.732 (1.52)	-0.395 (1.23)	574
6) 10 or More Employees	0.365 (.9)	0.912 (.74)	0.433 (1.08)	-0.180 (.23)	0.516 (1.37)	0.225 (1.01)	880
<i>Scope of Sales Market</i>							
7) Local	0.786 (1.62)	0.000 (.)	0.007 (.01)	1.763 (1.11)	0.862 (2.11)	0.421 (1.36)	633
8) Regional, National, or International	1.369 (3.54)	0.974 (1.03)	1.167 (2.59)	-1.380 (1.87)	0.666 (1.54)	-0.182 (.78)	821

Source: See Table 6.1.

Notes: See Table 6.13

Table 6.15. Racial Differences in Failing to Apply for Loans Fearing Denial, 1993

Specification	African-American	Asian	Native American	Hispanic	Non-minority Female
a) USA					
No Other Control Variables (n=4,637)	0.405 (16.65)	0.099 (3.61)	0.134 (1.72)	0.235 (8.28)	0.031 (1.54)
Full Set of Control Variables (same as Table 6.8, Column 3 except for loan characteristics) (n=4,633)	0.257 (10.02)	0.054 (1.98)	0.019 (.27)	0.164 (5.69)	-0.008 (.38)
b) MIDATL					
No Other Control Variables, except for MIDATL dummy and race*MIDATL interactions (n=4,637)	0.423 (16.25)	0.104 (3.54)	0.138 (1.76)	0.217 (7.21)	0.023 (1.07)
Full Set of Control Variables (same as Table 6.8, Column 3 except for loan characteristics) (n=4,633)	0.276 (9.99)	0.058 (1.99)	0.022 (.3)	0.153 (5.04)	-0.014 (.67)
c) Construction					
No Other Control Variables (n=781)	0.350 (6.74)	0.109 (1.27)	-0.087 (.54)	0.150 (2.22)	-0.007 (.12)
Full Set of Control Variables (same as Table 6.8, Column 3 except for loan characteristics) (n=781)	0.181 (3.67)	0.064 (.78)	-0.132 (1)	0.039 (.65)	-0.063 (1.32)

Source: See Table 6.1.

Notes: Reported estimates are Probit derivatives, t-Statistics in parentheses. Sample consists of all firms. Dependent variable equals one if the firm said they did not apply for a loan fearing denial, zero otherwise.

Table 6.16. Models of Failure to Obtain Credit Among Firms that Desired Additional Credit, 1993

Specification	African-American	Asian	Native American	Hispanic	Non-minority Female
a) USA					
No Other Control Variables (n=2,647)	0.455 (14.85)	0.299 (6.83)	0.188 (1.57)	0.297 (7.77)	0.126 (4.01)
Full Set of Control Variables (same as Table 6.8, Column 3 except for loan characteristics) (n=2,644)	0.276 (6.93)	0.180 (3.42)	-0.009 (0.06)	0.165 (3.51)	0.049 (1.38)
b) MIDATL					
No Other Control Variables (n=2,647)	0.457 (14.19)	0.310 (6.67)	0.197 (1.65)	0.288 (7.04)	0.114 (3.41)
Full Set of Control Variables (same as Table 6.8, Column 3 except for loan characteristics) (n=2,644)	0.278 (6.61)	0.200 (3.56)	-0.003 (0.02)	0.165 (3.30)	0.023 (0.61)
c) Construction					
No Other Control Variables (n=463)	0.413 (6.12)	0.196 (1.46)	0.128 (0.36)	0.255 (2.71)	0.043 (0.51)
Full Set of Control Variables (same as Table 6.8, Column 3 except for loan characteristics) (n=463)	0.051 (2.86)	0.015 (0.53)	-0.015 (0.41)	0.019 (1.00)	-0.010 (1.04)

Source: See Table 6.1.

Notes: Reported estimates are Probit derivatives, t-Statistics in parentheses. The sample consists of all firms that applied for loans along with those who needed credit, but did not apply for fear of refusal. Failure to obtain credit includes those firms that were denied and those that did not apply for fear of refusal. Dependent variable is unity if the firm failed to obtain credit and zero if the firm applied for credit and had their loan application approved.

Table 6.17. Most Important Problem Facing Your Business Today – USA, 1998

	Non-minority male	African-American	Other	Hispanic	Non-minority Female	Total
Financing and interest rates	5.8%	18.2%	10.6%	8.1%	6.2%	6.8%
Taxes	7.7%	1.9%	5.3%	3.1%	6.6%	6.9%
Inflation	0.4%	0.6%	0.0%	1.0%	0.4%	0.4%
Poor sales	7.0%	5.9%	11.6%	7.0%	8.3%	7.5%
Cost/availability of labor	3.9%	3.3%	2.4%	3.5%	4.5%	3.9%
Government regulations/red tape	7.1%	3.0%	4.8%	8.1%	6.5%	6.8%
Competition (from larger firms)	11.1%	10.7%	10.6%	18.4%	10.2%	11.3%
Quality of labor	14.4%	11.0%	9.4%	8.7%	9.1%	12.6%
Cost and availability of insurance	2.6%	1.0%	0.8%	0.0%	2.3%	2.2%
Other	11.4%	10.0%	8.3%	16.0%	12.7%	11.7%
Cash flow	4.6%	10.9%	6.3%	3.5%	3.3%	4.6%
Capital other than working capital	1.1%	1.7%	4.1%	0.8%	1.3%	1.3%
Acquiring and retaining new customers	3.1%	3.9%	5.0%	1.8%	3.3%	3.2%
Growth of firm/industry	0.9%	1.0%	1.2%	0.1%	0.4%	0.8%
Overcapacity of firm/industry	0.1%	0.0%	0.0%	0.3%	0.0%	0.1%
Marketing/advertising	2.1%	3.9%	2.5%	2.8%	3.6%	2.5%
Technology	1.4%	1.2%	1.6%	2.6%	1.3%	1.5%
Costs, other than labor	2.7%	1.8%	2.5%	3.6%	3.8%	2.9%
Seasonal/cyclical issues	1.3%	1.2%	0.7%	0.4%	0.7%	1.1%
Bill collection	2.8%	2.2%	2.4%	2.6%	2.8%	2.8%
Too much work/not enough time	3.6%	2.2%	4.3%	1.4%	5.7%	3.9%
No problems	4.6%	4.3%	5.6%	5.8%	6.4%	5.1%
Not ascertainable	0.4%	0.0%	0.0%	0.0%	0.7%	0.4%

Source: NERA calculations from the 1998 SSBF (n=3561).

Notes: Results are weighted.

Table 6.18. Determinants of Loan Denial Rates - USA, 1998

	(1)	(2)	(3)	(4)	(5)
African-American	0.422 (7.94)	0.254 (5.36)	0.217 (5.05)	0.192 (4.52)	0.218 (4.74)
Asian	0.148 (2.54)	0.129 (2.52)	0.049 (1.25)	0.023 (0.65)	0.028 (0.77)
Hispanic	0.353 (6.44)	0.269 (5.37)	0.211 (4.69)	0.183 (4.21)	0.171 (4.00)
Non-minority Female	0.087 (2.22)	0.049 (1.55)	0.024 (0.96)	0.016 (0.66)	0.011 (0.44)
Judgments		0.272 (4.28)	0.249 (4.32)	0.272 (4.47)	0.262 (4.20)
Firm delinquent		0.081 (2.88)	0.115 (4.20)	0.103 (3.88)	0.111 (4.01)
Personally delinquent		0.092 (2.85)	0.039 (1.59)	0.042 (1.69)	0.045 (1.76)
Bankrupt past 7 yrs		0.504 (4.48)	0.406 (3.83)	0.392 (3.67)	0.395 (3.64)
\$1998 sales (*10 ⁸)		-0.000 (2.47)	-0.000 (0.26)	0.000 (0.02)	0.000 (0.03)
\$1998 firm equity (*10 ⁸)		0.000 (1.40)	0.000 (0.46)	0.000 (0.20)	0.000 (0.06)
Owner home equity (*10 ⁸)		0.000 (0.52)	0.000 (1.47)	0.000 (0.96)	0.000 (0.90)
Owner net worth (*10 ⁸)		-0.000 (1.25)	-0.000 (1.28)	-0.000 (1.19)	-0.000 (1.24)
Owner years experience		-0.002 (1.42)	-0.001 (0.49)	-0.000 (0.34)	-0.000 (0.21)
Owners' share of business		0.000 (0.75)	-0.000 (0.12)	0.000 (0.03)	-0.000 (0.33)
Dun & Bradstreet credit ratings (4)	No	Yes	Yes	Yes	Yes
Owner's Education (6 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (1 variable)	No	No	Yes	Yes	Yes
Region (8 indicator variables)	No	No	No	Yes	Yes
Industry (8 indicator variables)	No	No	No	Yes	Yes
Year of Application (5 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (11 indicator vars.)	No	No	No	No	Yes
N	924	924	924	924	905
Pseudo R ²	.1061	.2842	.3714	.3910	.4015
Chi ²	90.0	241.1	315.1	331.8	337.8
Log likelihood	-379.3	-303.7	-266.7	-258.3	-251.7

Source: See Table 6.17.

Notes: Reported estimates are derivatives from Probit models, t-Statistics are in parentheses. "Other firm characteristics" include variables indicating whether the firm had a line of credit, 1998 full time equivalent employment, firm age, metropolitan area, legal form of organization (sole proprietorship, partnership, LLP, S-corporation, C-corporation, or LLC), existing long run relation with lender, geographic scope of market (regional, national, foreign, or international), the value of the firm's inventory, the firm's cash holdings, and the value of land held by the firm. "Characteristics of the loan" includes the size of the loan applied for.

Table 6.19. Determinants of Loan Denial Rates – MIDATL, 1998

	(1)	(2)	(3)	(4)	(5)
African-American	0.418 (7.22)	0.220 (4.39)	0.228 (4.72)	0.204 (4.25)	0.235 (4.52)
Asian	0.127 (2)	0.085 (1.64)	0.016 (.44)	-0.007 (.21)	-0.008 (.23)
Hispanic	0.364 (6.22)	0.281 (5.18)	0.214 (4.45)	0.182 (3.92)	0.162 (3.62)
Non-minority Female	0.093 (2.24)	0.053 (1.62)	0.030 (1.12)	0.020 (.79)	0.016 (.62)
African-American*MIDATL	0.006 (.06)	0.113 (1.05)	-0.020 (.35)	-0.013 (.24)	-0.014 (.24)
Asian*MIDATL	0.080 (.57)	0.250 (1.59)	0.286 (1.74)	0.336 (1.94)	0.399 (2.16)
Hispanic*MIDATL	-0.050 (.47)	-0.039 (.51)	-0.014 (.19)	-0.002 (.03)	0.017 (.2)
Non-minority Female*MIDATL	-0.041 (.39)	-0.043 (.53)	-0.040 (.69)	-0.035 (.62)	-0.042 (.84)
MIDATL region	0.032 (.61)	-0.012 (.27)	0.007 (.18)	-0.014 (.31)	-0.016 (.36)
Creditworthiness Controls (8 variables)	No	Yes	Yes	Yes	Yes
Owner's Education (6 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (1 variable)	No	No	Yes	Yes	Yes
Region (7 indicator variables)	No	No	No	Yes	Yes
Industry (8 indicator variables)	No	No	No	Yes	Yes
Year of Application (5 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (11 indicator vars.)	No	No	No	No	Yes
N	924	924	924	924	905
Pseudo R ²	0.1077	0.2899	0.3768	0.3969	0.4094
Chi ²	91.39	246.01	319.77	336.81	344.41
Log likelihood	-378.6	-301.3	-264.4	-255.9	-248.4

Source: See Table 6.17.

Notes: t-statistics in parentheses. Other creditworthiness controls are the 4 other variables included in Column (2) of Table 6.18.

Table 6.20. More Loan Denial Probabilities, 1998

	(1)	(2)	(3)	(4)
	<i>Denylast</i>	<i>Denylast</i>	<i>Denylast</i>	<i>Denylast</i>
African-American	0.457 (8)	0.246 (4.76)	0.438 (7.14)	0.224 (4.07)
Asian	0.185 (2.81)	0.027 (.65)	0.156 (2.2)	-0.011 (.29)
Hispanic	0.360 (6.28)	0.171 (3.67)	0.374 (6.09)	0.172 (3.41)
Non-minority Female	0.083 (2)	0.005 (.2)	0.090 (2.05)	0.007 (.25)
African-American*MIDATL			0.109 (.75)	0.100 (.86)
Asian*MIDATL			0.127 (.75)	0.445 (2.15)
Hispanic*MIDATL			-0.065 (.57)	0.002 (.02)
Non-minority Female*MIDATL			-0.050 (.45)	-0.025 (.34)
MIDATL			0.034 (.6)	0.343 (4.55)
Creditworthiness Controls	No	Yes	No	Yes
Owner's Education	No	Yes	No	Yes
Other Firm Characteristics	No	Yes	No	Yes
Characteristics of the loan	No	Yes	No	Yes
Region	No	Yes	No	Yes
Industry	No	Yes	No	Yes
N	846	846	846	846
Pseudo R ²	0.1112	0.4265	0.1148	0.4336
Chi ²	90.94	348.71	93.88	354.56
Log likelihood	-363.3	-234.5	-361.9	-231.5

Source: See Table 6.17.

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Table 6.21. Models of Interest Rate Charged, 1998

Specification	African-American	African-American * MIDATL	African-American * Construc- tion	Asian	Hispanic	Non-minority Female
1a) All Loans (as in Column 5 of Table 6.18) n=765	1.064 (2.66)	—	—	0.559 (1.49)	-0.088 (.23)	-0.501 (1.93)
1b) All Loans (as in Column 5 of Table 6.18) n=765	0.385 (.85)	4.701 (4.37)	-0.309 (.31)	0.191 (.43)	0.348 (.78)	0.198 (.15)
1c) All Loans (as in Column 5 of Table 6.18), MIDATL only n=87	3.680 (1.21)		-7.383 (1.41)	-1.616 (.53)	3.062 (.75)	3.355 (.53)

Source: See Table 6.17.

Notes: Each line of this table represents a separate regression with all of the control variables. The sample consists of firms who had applied for a loan and had their application approved.

Table 6.22. Racial Differences in Failing to Apply for Loans Fearing Denial, 1998

Specification	African-American	Asian	Hispanic	Non-minority Female
a) U.S.				
No Other Control Variables (n=3,448)	0.353 (11.90)	0.046 (1.48)	0.173 (5.77)	0.051 (2.55)
Full Set of Control Variables (n=3,448)	0.208 (7.04)	-0.012 (0.43)	0.052 (1.87)	0.011 (0.59)
b) MIDATL region				
No Other Control Variables (n=427)	0.345 (4.4)	0.223 (2.2)	0.068 (0.75)	0.010 (0.17)
Full Set of Control Variables (n=423)	0.222 (2.54)	0.203 (1.84)	0.043 (0.48)	-0.085 (1.42)
c) Construction				
No Other Control Variables (n=613)	0.371 (5.06)	0.117 (1.43)	0.020 (0.26)	0.122 (2.08)
Full Set of Control Variables (n=609)	0.273 (3.69)	0.099 (1.32)	-0.062 (1.13)	0.038 (0.74)

Source: See Table 6.17.

Note: Reported estimates are Probit derivatives with t-statistics in parentheses. Full set of control variables as in Column (5) of Table 6.18, except for loan amount, year of application, and type of lender.

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Table 6.23. Models of Credit Card Use, 1998

Specification	African-American	Asian	Hispanic	Non-minority Female	Sample Size
1) Business Credit Card	-0.001 (0.02)	-0.038 (1.00)	-0.014 (0.38)	-0.018 (0.72)	3,561
2) Personal Credit Card	-0.018 (0.54)	0.016 (0.44)	-0.050 (1.42)	0.012 (0.52)	3,561
3) Business Credit Card MIDATL	-0.063 (0.65)	-0.004 (0.03)	0.047 (0.42)	0.036 (0.42)	437
4) Personal Credit Card MIDATL	0.091 (0.93)	0.112 (0.91)	-0.048 (0.45)	-0.102 (1.29)	439
3) Business Credit Card Construction & related	0.056 (0.62)	-0.074 (0.7)	0.087 (0.86)	-0.025 (0.35)	624
4) Personal Credit Card Construction & related	0.003 (0.04)	0.047 (0.46)	-0.092 (1.01)	-0.073 (0.99)	624

Source: See Table 6.17.

Notes: Each line of this table represents a separate regression with the same control variables as Column (5) of Table 6.18, except for loan amount, year of application and type of lender. The dependent variable indicates whether the firm used business or personal credit cards to finance business expenses. In all specifications, the sample size includes all firms. Reported estimates are Probit derivatives with t-statistics in parentheses.

Table 6.24. Most Important Problem Facing Your Business Today – USA, 2003

	Non-minority male	African-American	Other	Hispanic	Non-minority Female	Total
Financing and interest rates	5.4%	20.7%	9.1%	5.7%	5.8%	6.3%
Taxes	6.3%	2.4%	4.9%	7.7%	4.3%	5.7%
Inflation	2.7%	1.0%	2.3%	0.5%	1.4%	2.3%
Poor sales	17.8%	38.5%	28.9%	30.0%	22.5%	20.6%
Cost/availability of labor	1.5%	0.0%	0.6%	1.5%	1.5%	1.4%
Government regulations/red tape	4.7%	1.0%	5.4%	9.6%	2.5%	4.5%
Competition (from larger firms)	4.0%	2.7%	2.7%	3.6%	3.6%	3.8%
Quality of labor	7.9%	6.9%	5.0%	3.8%	6.5%	7.2%
Cost and availability of insurance	10.3%	1.8%	3.1%	5.2%	6.4%	8.6%
Other	2.6%	1.9%	4.0%	2.8%	1.6%	2.5%
Cash flow	5.3%	3.4%	9.4%	4.1%	8.6%	6.0%
Capital other than working capital	6.2%	5.1%	4.6%	7.1%	6.8%	6.3%
Acquiring and retaining new customers	0.9%	2.7%	0.4%	1.1%	0.8%	1.0%
Growth of firm/industry	1.3%	0.0%	1.0%	0.1%	0.7%	1.0%
Overcapacity of firm/industry	1.6%	0.8%	1.8%	0.1%	1.1%	1.4%
Marketing/advertising	0.8%	0.8%	0.6%	1.6%	1.2%	0.9%
Technology	1.2%	2.2%	0.2%	0.0%	1.3%	1.1%
Costs, other than labor	4.2%	2.5%	4.3%	1.0%	6.1%	4.4%
Seasonal/cyclical issues	1.4%	0.7%	1.6%	2.3%	2.0%	1.6%
Bill collection	2.2%	1.8%	2.4%	1.8%	3.3%	2.4%
Too much work/not enough time	4.9%	1.9%	4.0%	2.3%	6.2%	4.8%
No problems	1.5%	0.0%	0.7%	0.8%	1.4%	1.4%
Costs, other than labor	1.5%	0.0%	0.7%	3.7%	1.2%	1.4%
Seasonal/cyclical issues	2.2%	1.0%	0.1%	3.6%	1.0%	1.9%
Bill collection	0.3%	0.0%	0.0%	0.0%	0.8%	0.4%
Too much work/not enough time	0.4%	0.0%	0.7%	0.0%	0.5%	0.4%
No problems	0.3%	0.4%	0.0%	0.0%	0.4%	0.3%
Not ascertainable	0.2%	0.0%	1.3%	0.0%	0.5%	0.3%

Source: NERA calculations from the 2003 SSBF (n=4072).

Note: Results are weighted.

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Table 6.25. Determinants of Loan Denial Rates - USA, 2003

	(1)	(2)	(3)	(4)	(5)
African-American	0.459 (8.38)	0.136 (5.47)	0.105 (4.80)	0.091 (5.04)	0.094 (4.95)
Asian	0.055 (1.51)	0.020 (1.59)	0.009 (1.01)	0.002 (0.49)	0.001 (0.18)
Hispanic	0.067 (1.74)	0.008 (0.83)	0.004 (0.58)	0.001 (0.30)	0.001 (0.25)
Native American and Other	0.184 (2.22)	0.061 (1.95)	0.032 (1.47)	0.021 (1.43)	0.021 (1.49)
Non-minority Female	0.043 (2.17)	0.003 (0.70)	0.002 (0.49)	0.001 (0.57)	0.002 (0.76)
Judgments against owner		0.007 (0.66)	0.003 (0.35)	0.003 (0.54)	0.006 (0.90)
Judgments against firm		0.005 (1.16)	0.005 (1.42)	0.001 (0.54)	0.001 (0.64)
Firm delinquent		0.032 (3.78)	0.021 (3.23)	0.019 (3.89)	0.021 (4.08)
Personally delinquent		-0.007 (0.69)	-0.006 (1.02)	-0.003 (0.82)	-0.002 (0.58)
Owner Bankrupt past 7 yrs		0.046 (1.36)	0.041 (1.35)	0.052 (1.81)	0.044 (1.66)
Firm Bankrupt past 7 yrs		0.000 (0.03)	0.003 (0.37)	0.001 (0.17)	-0.001 (0.38)
\$1998 sales (*10 ⁸)		-0.000 (1.68)	0.000 (0.04)	0.000 (0.29)	0.000 (0.51)
\$1998 firm equity (*10 ⁸)		-0.000 (2.23)	-0.000 (1.03)	-0.000 (1.62)	-0.000 (1.63)
Owner home equity (*10 ⁸)		0.000 (0.28)	0.000 (0.02)	-0.000 (0.45)	-0.000 (0.26)
Owner net worth (*10 ⁸)		-0.000 (2.97)	-0.000 (2.92)	-0.000 (3.06)	-0.000 (3.26)
Owner years experience		0.000 (0.31)	0.000 (1.00)	0.000 (0.82)	0.000 (0.62)
Owners' share of business		0.000 (0.08)	0.000 (0.61)	0.000 (0.38)	0.000 (0.47)
Dun & Bradstreet credit ratings (4)	No	Yes	Yes	Yes	Yes
Owner's Education (6 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (1 variable)	No	No	Yes	Yes	Yes
Region (8 indicator variables)	No	No	No	Yes	Yes
Industry (8 indicator variables)	No	No	No	Yes	Yes
Year of Application (5 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (11 indicator vars.)	No	No	No	No	Yes
N	1,664	1,655	1,655	1,655	1,605
Pseudo R ²	.0850	.2267	.2901	.3336	.3681
Chi ²	74.1	192.9	246.8	283.8	310.3
Log likelihood	-399.1	-328.9	-301.9	-283.4	-266.4

Source: See Table 6.24. Notes: "Other firm characteristics" include variables indicating whether the firm had a line of credit, 2003 total employment, firm age, metropolitan area, legal form of organization (sole proprietorship, partnership, LLP, S-corporation, C-corporation, or LLC), existing long run relation with lender, geographic scope of market (local, regional, national, foreign, or international), the value of the firm's inventory, the firm's cash holdings, the value of land held by the firm, and total salaries and wages paid. "Characteristics of the loan" includes the size of the loan applied for.

Table 6.26. Determinants of Loan Denial Rates – MIDATL, 2003

	(1)	(2)	(3)	(4)	(5)
African-American	0.441 (7.61)	0.119 (4.82)	0.092 (4.26)	0.079 (4.53)	0.084 (4.49)
Asian	0.055 (1.4)	0.026 (1.77)	0.015 (1.35)	0.005 (0.86)	0.002 (0.39)
Hispanic	0.079 (1.95)	0.012 (1.07)	0.007 (0.84)	0.002 (0.5)	0.002 (0.56)
Native and Other	0.124 (1.5)	0.037 (1.31)	0.017 (0.91)	0.012 (0.91)	0.013 (1.05)
Non-minority Female	0.037 (1.74)	0.002 (0.38)	0.001 (0.22)	0.001 (0.33)	0.001 (0.52)
African-American*MIDATL	0.055 (0.58)	0.058 (1.09)	0.058 (1.07)	0.040 (1.03)	0.027 (0.86)
Asian*MIDATL	-0.002 (0.02)	-0.009 (0.75)	-0.007 (0.93)	-0.004 (0.79)	-0.002 (0.37)
Hispanic-Other*MIDATL	—	—	—	—	—
Native-Other*MIDATL	—	—	—	—	—
Non-minority Female*MIDATL	0.034 (0.63)	0.007 (0.53)	0.005 (0.49)	0.003 (0.48)	0.003 (0.46)
MIDATL region	0.025 (1.09)	0.008 (1.27)	0.006 (1.13)	0.001 (0.33)	0.001 (0.19)
Creditworthiness (4 variables)	No	Yes	Yes	Yes	Yes
Dun & Bradstreet credit ratings (4 variables)	No	Yes	Yes	Yes	Yes
Balance Sheet (4 indicator variables)	No	Yes	Yes	Yes	Yes
Owner Experience (1 indicator variable)	No	Yes	Yes	Yes	Yes
Owner's Share of Business (1 indicator variable)	No	Yes	Yes	Yes	Yes
Owner's Education (6 indicator variables)	No	Yes	Yes	Yes	Yes
Other Firm Characteristics (17 variables)	No	No	Yes	Yes	Yes
Characteristics of the Loan (1 variable)	No	No	Yes	Yes	Yes
Region (7 indicator variables)	No	No	No	Yes	Yes
Industry (8 indicator variables)	No	No	No	Yes	Yes
Year of Application (5 indicator variables)	No	No	No	No	Yes
Type of Financial Institution (11 indicator vars.)	No	No	No	No	Yes
N	1,660	1,651	1,651	1,651	1,601
Pseudo R ²	0.0878	0.2316	0.2946	0.3346	0.3683
Chi ²	76.1	195.66	248.94	282.7	308.38
Log likelihood	-395.3	-324.6	-298	-281.1	-264.5

Source: See Table 6.24.

Notes: t-statistics in parentheses. Creditworthiness controls include presence of legal judgments against the firm during the previous 3 years, more than 60 days delinquent on any personal obligations the firm's owner during the previous 3 years, more than 60 days delinquent on any business obligations the firm during the previous 3 years, and declaration of owner of firm bankruptcy during the previous 7 years. Balance sheet variables include firm sales in 1998, firm equity in 1998, owner's home equity in 1998, and owner's personal net worth (exclusive of firm equity and home equity) in 1998. For other variables, see notes for Table 6.25.

Statistical Disparities in Capital Markets

Table 6.27. Models of Interest Rate Charged, 2003

Specification	African-American	Asian	Hispanic	Native and Other	Non-minority Female
1a) All Loans (as in Column 5 of Table 6.25) n=1,537	1.046 (2.02)	0.430 (1.20)	0.991 (2.72)	0.260 (0.35)	-0.148 (0.75)
1b) All Loans (as in Column 5 of Table 6.26) n=1,537	0.833 (1.39)	0.330 (0.78)	1.440 (3.22)	0.475 (0.51)	-0.332 (1.47)

Source: See Table 6.24.

Notes: Each line of this table represents a separate regression with all of the control variables as indicated. Additionally, controls were included for whether the loan required a co-signer or guarantor, whether collateral was required and, if so, the type of collateral required. The sample consists of firms who had applied for a loan and had their application approved.

Table 6.28. Models of Credit Card Use, 2003

Specification	African-American	Asian	Hispanic	Native American and Other	Non-minority Female	Sample Size
1) Business Credit Card	-0.060 (1.13)	0.040 (.91)	0.004 (.08)	-0.001 (.01)	0.002 (.07)	3,676
2) Personal Credit Card	-0.132 (2.68)	0.036 (.84)	-0.080 (1.77)	-0.040 (.48)	0.036 (1.56)	3,676
3) Business Credit Card, MIDATL	-0.342 (1.94)	-0.015 (.12)	-0.224 (1.18)	—	-0.022 (.32)	445
4) Personal Credit Card, MIDATL	-0.222 (1.48)	0.022 (.18)	0.278 (1.48)	-0.210 (.89)	0.095 (1.42)	452

Source: See Table 6.24.

Notes: Each line of this table represents a separate regression with the same control variables as Column (5) of Table 6.27, except for loan amount, year of application, and type of lender. The dependent variable indicates whether the firm used business or personal credit cards to finance business expenses. In all specifications, the sample size is all firms. Reported estimates are Probit derivatives with t-statistics in parentheses.

Statistical Disparities in Capital Markets

Table 6.29. Racial Differences in Failing to Apply for Loans Fearing Denial, 2003

Specification	African-American	Asian	Hispanic	Native American and Other	Non-minority Female
a) U.S.					
No Other Control Variables (n=3,704)	0.385 (9.48)	0.059 (1.95)	0.138 (4.01)	0.138 (2.14)	0.072 (4.47)
Full Set of Control Variables (n=3,676)	0.166 (4.73)	0.038 (1.40)	0.050 (1.82)	0.052 (1.01)	0.035 (2.46)
b) MIDATL region					
No Other Control Variables (n=3,704)	0.359 (8.46)	0.062 (1.90)	0.125 (3.56)	0.165 (2.40)	0.061 (3.53)
Full Set of Control Variables (n=3,676)	0.137 (3.84)	0.047 (1.61)	0.042 (1.50)	0.072 (1.30)	0.025 (1.69)
c) Construction					
No Other Control Variables (n=705)	0.492 (4.34)	-0.022 (0.29)	0.090 (1.22)	0.258 (2.17)	0.026 (0.64)
Full Set of Control Variables (n=695)	0.303 (3.16)	0.002 (0.04)	-0.009 (0.34)	0.137 (1.65)	-0.002 (0.11)

Source: See Table 6.24.

Note: Reported estimates are Probit derivatives with t-statistics in parentheses. Full set of control variables as in Column (5) of Table 6.25, except for loan amount, year of application, and type of lender. In Panel (b), interaction terms between race, sex, and SATL were all insignificant, with the exception of the interaction between white female and SATL in the model with no other controls.

Table 6.30. Determinants of Loan Denial Rates – Nine Jurisdictions

	(1)	(2)
	<i>Most Recent Application</i>	<i>Last Three Years</i>
African-American	0.289 (8.2)	0.293 (7.60)
Hispanic	0.178 (3.86)	0.244 (4.59)
Native American	0.087 (1.69)	0.188 (3.29)
Asian	0.042 (0.72)	0.003 (0.05)
Other race	0.313 (3.07)	0.364 (3.15)
Non-minority female	0.046 (1.83)	0.086 (2.96)
Judgments	0.051 (1.23)	0.119 (2.24)
Firm delinquent	0.022 (2.7)	0.057 (5.90)
Personally delinquent	0.076 (7.38)	0.077 (6.03)
Bankrupt past 3yrs	0.228 (3.99)	0.328 (4.74)
N	1,855	1,855
Pseudo R ²	.1905	.1721
Chi ²	336.0	363.3

Source: NERA Credit Market Surveys, 1999-2007.

Notes: Reported estimates are derivatives from Probit models, t-statistics are in parentheses. Indicator variables are also included for the various jurisdictions.

Table 6.31. Determinants of Interest Rates – Nine Jurisdictions

	(1)	(2)
African-American	1.683 (3.44)	1.491 (2.98)
Asian	1.221 (2.16)	0.789 (1.34)
Hispanic	0.820 (1.48)	0.895 (1.56)
Native American	1.241 (1.52)	1.008 (1.24)
Other race	-1.115 (0.63)	-1.072 (0.61)
Non-minority female	0.046 (0.16)	0.018 (0.06)
Judgments		0.537 (0.85)
Firm delinquent		-0.041 (0.36)
Personally delinquent		0.644 (3.65)
Bankrupt past 3yrs		1.184 (1.13)
Creditworthiness, Firm, and Owner Characteristics	No	Yes
Loan Characteristics	Yes	Yes
N	1,490	1,463
Adjusted R ²	.0831	.1046
F	11.4	11.05

Source: See Table 6.30.

Notes: Reported estimates are OLS regression models, t-statistics are in parentheses. Source: NERA Credit Market Surveys, 1999-2007. Five indicators for primary owner's education level, four indicators for legal form of organization, loan amount applied for, loan amount granted, and month and year of loan application. Seven additional indicators for jurisdiction are also included.

VII. M/WBE Utilization and Disparity in the State's Markets

A. Introduction

The *Croson* decision and its progeny have held that statistical evidence of race-based or gender-based disparities in business enterprise activity is a requirement for any state or local entity that desires to establish or maintain race-conscious or gender-conscious requirements for M/WBE participation in contracting and procurement. Chapters V and VI documented the extent of disparity facing minority- and women-owned firms in the private sector of the State's market area, where contracting and procurement activity is typically *not* subject to such requirements. In this Chapter we examine whether there is statistical evidence of disparities in the public sector contracting and procurement activities supported by NYS.

To determine whether M/WBEs have been underutilized in the public sector we should ideally examine public expenditures that were *not* subject to affirmative action requirements. However, NYS has had a longstanding policy of pursuing affirmative action programs in contracting and procurement.²⁴⁵

Given the history of the State's M/WBE policy, its own data might not show evidence of underutilization, even if such underutilization exists in the private sector. Instead, the State's data, in our view, is most useful for examining the effectiveness of its M/WBE policy during the study period. On the other hand, of course, if actual NYS M/WBE utilization still turns out to be significantly less than M/WBE availability in certain procurement categories, then the State's data will still provide evidence of adverse disparities.

The statistical evidence reported in Chapter III has already established from which specific industries NYS buys the goods and services it requires as well as from which geographic areas it draws the majority of its prime contractors and subcontractors. In addition, the statistical evidence reported in Chapter IV has established what percentage of all firms in the State's geographic and product markets are M/WBEs.

²⁴⁵ See Chapter I, Section B, for an historical summary of the State's M/WBE policy.

This Chapter will document:

- To what extent NYS has utilized M/WBEs in its contracting and subcontracting opportunities during the study period;
- Whether M/WBEs have been utilized to the extent that they are available in the relevant marketplace.

We report this information for Construction, CRS, Services, and Commodities, and for all four of these procurement categories combined. All results are reported by race and sex as well as for all M/WBEs combined.

B. M/WBE Utilization

For this Study, we examined 4,618 prime contracts and 14,889 associated subcontracts covering a five-year time period and with a total value of approximately \$33.3B. NAICS codes, M/WBE status, and detailed race and sex status for the prime contractors and subcontractors included in the master contract/subcontract database²⁴⁶ were established through extensive computer-assisted cross-referencing of firms in that database with firms in (a) the master directory of M/WBEs assembled for this study,²⁴⁷ (b) Dun & Bradstreet²⁴⁸ (c) company profiles drawn from American Business Information, Hoover's, Standard & Poors, and other sources, and (d) the results of our race/sex misclassification/non-classification surveys.²⁴⁹

During the study period, as a group, we found that M/WBEs earned 12.4 percent of all NYS contract and subcontract dollars in Construction, 19.4 percent of all contract and subcontract dollars in CRS, 2.8 percent of all contract and subcontract dollars in Services, and 0.75 percent of all contract dollars in Commodities. Combined, M/WBEs earned 5.0 percent of all State contract and subcontract dollars during the five-year study period.

Table 7.1 (page 251) details the key results of our analysis of M/WBE participation at NYS. For minority-owned M/WBEs (i.e. M/WBEs other than non-minority women), utilization was 8.6 percent in Construction, 15.4 percent in CRS, 0.65 percent in Services, 0.12 percent in Commodities, and 2.9 percent overall. For non-minority women-owned M/WBEs utilization was 3.8 percent in Construction, 4.0 percent in CRS, 2.2 percent in Services, 0.63 percent in Commodities, and 2.2 percent overall.

Overall, among M/WBEs, firms owned by non-minority women earned the largest fraction of NYS contracting and subcontracting dollars (2.2 percent), followed in descending order by firms owned by Asians (1.1 percent), firms owned by Hispanics (0.81 percent), firms owned by African-Americans (0.70 percent), and firms owned by Native Americans (0.2 percent).

²⁴⁶ See Chapter III.

²⁴⁷ See Chapter IV.

²⁴⁸ *Ibid.*

²⁴⁹ *Ibid.*

It is clear from Table 7.1 that, statewide, in the major procurement categories of Services and Commodities, participation by M/WBEs in general, and minority-owned M/WBEs in particular, is practically non-existent.

Tables 7.2 through 7.5 (starting on page 252) provide utilization statistics by NAICS Industry Sub-Sector group (three-digit NAICS code) for each race and sex group in the Study. Tables 7.6 through 7.9 (starting on page 264) provide similar utilization statistics by NAICS Industry Group (four-digit NAICS code).²⁵⁰

C. Disparity Analysis

We turn next to a comparison between our estimates of M/WBE utilization in the State's own contracting and subcontracting activities and our estimates of M/WBE availability in the State's geographic and product market area.

Table 7.10 (starting on page 292) presents the results of this comparison for the State's contracting and procurement as a whole.

The figures in the utilization column in this table are the same as those from Table 7.1 and include both prime contract and subcontract dollars. The figures in the availability column are the same as those in Table 4.17.

The disparity ratio, in the final column of Table 7.10, is derived by dividing utilization by availability and multiplying the result by 100. A disparity ratio below 100 indicates that M/WBEs are participating in NYS contracting and subcontracting at a level that is less than their estimated availability in the relevant marketplace. A disparity ratio of 80 or lower is considered to be large. A disparity ratio is said to be adverse and statistically significant if it is less than or equal to 80 and unlikely to be caused by chance alone.

For NYS, disparity ratios are less than or equal to 80 in 31 of 35 cases examined in Table 7.10. In Services and Commodities, these ratios are less than 15 in every case. It is evident from Table 7.10 that the almost all of the M/WBE participation in State contracting and subcontracting is occurring in Construction and CRS.

In Construction, statistically significant adverse disparities are observed for Hispanics, MBEs as a group, Non-minority women, and M/WBEs as a group.

In CRS, statistically significant adverse disparities are observed for non-minority female-owned firms.

In Services, no statistically significant adverse disparities are observed.

In Commodities, statistically significant adverse disparities are observed for Asian-owned firms, MBE firms as a group, non-minority female-owned firms, and M/WBE firms as a group.

²⁵⁰ Comparable statistics were calculated at the NAICS Industry level as well (five-digit and six-digit NAICS). In the interest of space, these results are not reported here. Four-digit NAICS codes are most comparable to four-digit Standard Industrial Classification (SIC) codes, which were used prior to the advent of the NAICS system.

The lack of statistical significance in Services is largely due to the presence of a small number of multi-billion dollar NYS Health Insurance Program (NYSHIP) contracts.²⁵¹ If these contracts are excluded from the calculations, the disparities for M/WBEs and Minority-owned firms become statistically significant at a 5 percent level or better and the disparities for non-minority females and Asian-owned firms become statistically significant at a 10 percent level or better. This is shown in Table 7.10a (starting on page 293).

The absence of this small number of extremely large NYSHIP contracts impacts the statistical significance of the “All Procurement” as well, as can be seen by comparison of Table 7.10 to Table 7.10a. In the “All Procurement” category in Table 7.10a, the disparity ratios for M/WBEs as a group, for Minority-owned firms, for non-minority female owned firms, for Asian-owned firms, and for Hispanic-owned firms all become highly statistically significant. The disparity ratio for Black-owned firms becomes statistically significant as well.

Tables 7.11 through 7.14 (starting on page 294) present disaggregated disparity results by NAICS Industry Sub-Sector. Adverse disparities are observed among all minority and sex groups and in a wide variety of industry categories.²⁵²

Tables 7.15 through 7.29 (starting on page 341) present disparity results, overall and by major procurement category, for each individual state agency, authority, or university included in the study. Again, adverse disparities are observed among all minority and sex groups and in a wide variety of industry categories.

D. Current versus Expected Availability

Finally, Table 7.30 (page 356) provides a comparison between current levels of M/WBE availability for NYS and levels that we would expect to observe in a race- and gender-neutral marketplace. The latter, referred to as “expected availability,” is derived by dividing the current availability figures, as documented in Table 4.17 (page 138), by the disparity ratios documented in column (3) of Table 5.21 (page 178). If no disparity is present in the relevant marketplace, the disparity ratio will be equal to 100 and expected availability will be equivalent to current availability. In cases where adverse disparities are present in the relevant marketplace, the disparity ratio will be less than 100 and, consequently, expected availability will exceed current availability. In all 35 cases examined in Table 7.15 expected M/WBE availability in the State’s market area exceeds current M/WBE availability.

²⁵¹ The standard deviation in this procurement category is 45 times larger than in Construction, 66 times larger than in CRS, and 6 times larger than in Commodities.

²⁵² Disparity tests were also carried out at the NAICS Industry Group and NAICS Industry level, with similar results to those observed at the Industry Sub-Sector level. In the interest of space, these results are not reported here.

M/WBE Utilization and Disparity in the State's Markets**E. Tables****Table 7.1. M/WBE Utilization at NYS, 2004-2008**

M/WBE Type	Procurement Category				
	Construction	CRS	Services	Commodities	Overall
	(%)	(%)	(%)	(%)	(%)
African-American	2.51	0.93	0.15	0.05	0.70
Hispanic	2.65	3.73	0.11	0.04	0.81
Asian	2.56	10.61	0.39	0.04	1.13
Native American	0.86	0.14	0.00	0.00	0.21
MBE	8.59	15.41	0.65	0.12	2.85
Non-minority Females	3.80	4.02	2.18	0.63	2.18
M/WBE Total	12.39	19.43	2.83	0.75	5.03
Non-M/WBE Total	87.61	80.57	97.17	99.25	94.97
Total (%)	100.00	100.00	100.00	100.00	100.00
Total (\$)	7,901,356,795	1,067,335,628	14,703,277,248	9,620,367,432	33,297,297,342

Source: NERA Master Contract/Subcontract Database.

M/WBE Utilization and Disparity in the State's Markets

Table 7.2. Construction—M/WBE Utilization by Industry Sub-Sector (Percentages), 2004-2008

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Specialty Trade Contractors (NAICS 238)	4.23	5.22	0.97	0.79	5.00	16.21	83.79
Heavy and Civil Engineering Construction (NAICS 237)	0.49	1.16	0.34	0.11	0.97	3.08	96.92
Construction of Buildings (NAICS 236)	0.65	0.28	1.79	0.07	1.46	4.25	95.75
Merchant Wholesalers, Durable Goods (NAICS 423)	2.23	1.53	2.07	3.17	5.02	14.03	85.97
Professional, Scientific, and Technical Services (NAICS 541)	0.09	0.66	11.14	1.55	1.76	15.20	84.80
Fabricated Metal Product Manufacturing (NAICS 332)	0.52	0.20	21.53	0.44	7.10	29.80	70.20
Waste Management and Remediation Services (NAICS 562)	6.37	1.11	0.00	1.52	6.73	15.72	84.28
Truck Transportation (NAICS 484)	12.95	0.41	0.02	1.04	12.78	27.20	72.80
Administrative and Support Services (NAICS 561)	11.36	0.71	0.66	10.01	22.25	44.98	55.02
Nonmetallic Mineral Product Manufacturing (NAICS 327)	0.79	2.04	32.54	0.52	2.63	38.52	61.48
Rental and Leasing Services (NAICS 532)	1.25	0.58	0.05	0.00	2.96	4.84	95.16
Transportation Equipment Manufacturing (NAICS 336)	0.49	0.00	38.67	0.00	0.39	39.56	60.44
Computer and Electronic Product Manufacturing (NAICS 334)	2.63	0.03	0.00	0.00	0.51	3.17	96.83
Merchant Wholesalers, Nondurable Goods (NAICS 424)	1.72	0.02	0.45	0.00	6.12	8.31	91.69
Repair and Maintenance (NAICS 811)	2.76	3.15	0.00	0.00	30.70	36.61	63.39
Machinery Manufacturing (NAICS 333)	0.00	0.78	2.35	0.00	1.38	4.51	95.49
Furniture and Home Furnishings Stores (NAICS 442)	15.55	0.00	0.00	0.00	3.43	18.98	81.02
Electrical Equipment, Appliance, and Component Manufacturing (NAICS 335)	4.12	0.00	15.48	0.00	1.07	20.67	79.33
Miscellaneous Manufacturing (NAICS 339)	0.23	0.04	19.97	0.00	53.62	73.85	26.15
Telecommunications (NAICS 517)	0.00	0.00	0.15	0.00	1.48	1.63	98.37
Wood Product Manufacturing (NAICS 321)	0.00	0.39	0.00	0.00	0.00	0.39	99.61
Plastics and Rubber Products Manufacturing (NAICS 326)	0.00	0.00	0.00	0.00	0.16	0.16	99.84

M/WBE Utilization and Disparity in the State's Markets

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Credit Intermediation and Related Activities (NAICS 522)	0.00	0.00	0.21	0.00	0.00	0.21	99.79
Building Material and Garden Equipment and Supplies Dealers (NAICS 444)	0.00	0.00	0.00	7.80	5.63	13.43	86.57
Insurance Carriers and Related Activities (NAICS 524)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Primary Metal Manufacturing (NAICS 331)	0.00	10.95	0.00	0.00	54.95	65.90	34.10
Furniture and Related Product Manufacturing (NAICS 337)	0.00	0.00	39.35	0.00	14.31	53.67	46.33
Real Estate (NAICS 531)	0.00	0.00	0.00	0.00	0.90	0.90	99.10
Mining (except Oil and Gas) (NAICS 212)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Agriculture and Forestry (NAICS 115)	0.00	0.00	0.00	0.00	21.48	21.48	78.52
Utilities (NAICS 221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Chemical Manufacturing (NAICS 325)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Paper Manufacturing (NAICS 322)	0.00	0.00	0.00	0.00	0.08	0.08	99.92
Petroleum and Coal Products Manufacturing (NAICS 324)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Mining (NAICS 213)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Transportation (NAICS 488)	5.10	0.00	0.00	0.00	3.60	8.70	91.30
Securities, Commodity Contracts, and Other Financial Investments and Related Activities (NAICS 523)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Publishing Industries (except Internet) (NAICS 511)	0.00	0.00	0.00	9.66	0.00	9.66	90.34
Personal and Laundry Services (NAICS 812)	0.00	0.00	0.00	0.00	0.15	0.15	99.85
Printing and Related Support Activities (NAICS 323)	0.00	0.00	12.84	0.00	52.56	65.41	34.59
Crop Production (NAICS 111)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electronics and Appliance Stores (NAICS 443)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Textile Product Mills (NAICS 314)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Educational Services (NAICS 611)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Transit and Ground Passenger Transportation (NAICS 485)	0.00	0.00	96.62	0.00	0.00	96.62	3.38

M/WBE Utilization and Disparity in the State's Markets

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Sporting Goods, Hobby, Book, and Music Stores (NAICS 451)	0.00	0.00	0.00	0.00	96.05	96.05	3.95
Motor Vehicle and Parts Dealers (NAICS 441)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Ambulatory Health Care Services (NAICS 621)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Rail Transportation (NAICS 482)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Broadcasting (except Internet) (NAICS 515)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Accommodation (NAICS 721)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Couriers and Messengers (NAICS 492)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Nonstore Retailers (NAICS 454)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Textile Mills (NAICS 313)	0.00	0.00	0.00	0.00	15.15	15.15	84.85
Food and Beverage Stores (NAICS 445)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Social Assistance (NAICS 624)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Beverage and Tobacco Product Manufacturing (NAICS 312)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Food Services and Drinking Places (NAICS 722)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Funds, Trusts, and Other Financial Vehicles (NAICS 525)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Food Manufacturing (NAICS 311)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Animal Production (NAICS 112)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

Source: See Table 7.1.

Table 7.3. CRS—M/WBE Utilization by Industry Sub-Sector (Percentages) , 2004-2008

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Professional, Scientific, and Technical Services (NAICS 541)	0.45	5.20	10.08	0.19	3.27	19.18	80.82
Construction of Buildings (NAICS 236)	0.54	0.00	8.48	0.00	1.80	10.82	89.18
Merchant Wholesalers, Durable Goods (NAICS 423)	0.07	0.00	4.99	0.00	0.02	5.08	94.92
Administrative and Support Services (NAICS 561)	1.18	0.14	36.57	0.00	3.43	41.32	58.68
Heavy and Civil Engineering Construction (NAICS 237)	6.26	0.00	4.81	0.05	2.96	14.08	85.92
Specialty Trade Contractors (NAICS 238)	4.73	1.36	22.74	0.00	5.45	34.27	65.73
Fabricated Metal Product Manufacturing (NAICS 332)	0.00	0.00	0.00	0.00	96.87	96.87	3.13
Rental and Leasing Services (NAICS 532)	40.23	0.02	0.00	0.00	0.00	40.24	59.76
Amusement, Gambling, and Recreation Industries (NAICS 713)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Nonmetallic Mineral Product Manufacturing (NAICS 327)	0.00	0.00	99.92	0.00	0.00	99.92	0.08
Waste Management and Remediation Services (NAICS 562)	0.00	0.00	0.00	0.00	95.04	95.04	4.96
Repair and Maintenance (NAICS 811)	0.00	0.00	0.00	0.00	0.16	0.16	99.84
Real Estate (NAICS 531)	0.00	31.09	0.00	0.00	0.00	31.09	68.91
Transportation Equipment Manufacturing (NAICS 336)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Miscellaneous Manufacturing (NAICS 339)	0.00	0.00	20.25	0.00	13.23	33.48	66.52
Printing and Related Support Activities (NAICS 323)	0.00	78.82	0.00	0.00	0.96	79.79	20.21
Support Activities for Transportation (NAICS 488)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Ambulatory Health Care Services (NAICS 621)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Insurance Carriers and Related Activities (NAICS 524)	0.00	0.00	35.65	0.00	0.00	35.65	64.35
Computer and Electronic Product Manufacturing (NAICS 334)	0.00	0.00	0.00	0.00	7.91	7.91	92.09
Machinery Manufacturing (NAICS 333)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Truck Transportation (NAICS 484)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Plastics and Rubber Products Manufacturing (NAICS 326)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Chemical Manufacturing (NAICS 325)	0.00	0.00	0.00	0.00	99.15	99.15	0.85
Data Processing, Hosting and Related Services (NAICS 518)	100.00	0.00	0.00	0.00	0.00	100.00	0.00
Utilities (NAICS 221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Motor Vehicle and Parts Dealers (NAICS 441)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Motion Picture and Sound Recording Industries (NAICS 512)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Food Services and Drinking Places (NAICS 722)	0.00	0.00	0.00	0.00	33.23	33.23	66.77
Personal and Laundry Services (NAICS 812)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Merchant Wholesalers, Nondurable Goods (NAICS 424)	0.00	0.00	0.00	0.00	53.40	53.40	46.60
Miscellaneous Store Retailers (NAICS 453)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Apparel Manufacturing (NAICS 315)	0.00	0.00	100.00	0.00	0.00	100.00	0.00
Beverage and Tobacco Product Manufacturing (NAICS 312)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Agriculture and Forestry (NAICS 115)	0.00	0.00	0.00	0.00	98.07	98.07	1.93
Telecommunications (NAICS 517)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Building Material and Garden Equipment and Supplies Dealers (NAICS 444)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Publishing Industries (except Internet) (NAICS 511)	0.00	0.00	0.00	0.00	100.00	100.00	0.00

Source: See Table 7.1.

Table 7.4. Services—M/WBE Utilization by Industry Sub-Sector (Percentages), 2004-2008

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Merchant Wholesalers, Nondurable Goods (NAICS 424)	0.00	0.00	0.00	0.00	0.01	0.01	99.99
Professional, Scientific, and Technical Services (NAICS 541)	0.01	0.17	1.81	0.01	12.54	14.54	85.46
Insurance Carriers and Related Activities (NAICS 524)	0.00	0.00	0.31	0.00	0.70	1.01	98.99
Nursing and Residential Care Facilities (NAICS 623)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Merchant Wholesalers, Durable Goods (NAICS 423)	0.01	0.00	2.72	0.00	7.12	9.85	90.15
Administrative and Support Services (NAICS 561)	2.84	3.03	0.18	0.00	7.26	13.31	86.69
Data Processing, Hosting and Related Services (NAICS 518)	0.89	0.00	0.00	0.00	0.28	1.17	98.83
Transit and Ground Passenger Transportation (NAICS 485)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Amusement, Gambling, and Recreation Industries (NAICS 713)	0.00	0.00	0.03	0.00	0.01	0.05	99.95
Credit Intermediation and Related Activities (NAICS 522)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Construction of Buildings (NAICS 236)	0.00	0.00	0.31	0.00	0.10	0.41	99.59
Specialty Trade Contractors (NAICS 238)	9.77	0.86	2.52	0.00	3.27	16.41	83.59
Health and Personal Care Stores (NAICS 446)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Food Services and Drinking Places (NAICS 722)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Social Assistance (NAICS 624)	0.00	0.00	0.00	0.00	99.79	99.79	0.21
Ambulatory Health Care Services (NAICS 621)	0.00	0.58	0.34	0.00	0.76	1.67	98.33
Truck Transportation (NAICS 484)	0.00	3.70	0.00	0.00	0.11	3.81	96.19
Securities, Commodity Contracts, and Other Financial Investments and Related Activities (NAICS 523)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Heavy and Civil Engineering Construction (NAICS 237)	0.14	0.00	0.00	0.00	0.17	0.31	99.69

M/WBE Utilization and Disparity in the State's Markets

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Waste Management and Remediation Services (NAICS 562)	0.02	0.00	0.00	0.00	2.35	2.37	97.63
Transportation Equipment Manufacturing (NAICS 336)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Personal and Laundry Services (NAICS 812)	0.00	0.00	0.00	0.00	1.76	1.76	98.24
Publishing Industries (except Internet) (NAICS 511)	0.00	0.00	2.68	0.00	16.97	19.65	80.35
Machinery Manufacturing (NAICS 333)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Computer and Electronic Product Manufacturing (NAICS 334)	0.00	0.00	0.00	0.00	0.66	0.66	99.34
Telecommunications (NAICS 517)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Fabricated Metal Product Manufacturing (NAICS 332)	0.00	0.00	59.64	0.00	0.00	59.64	40.36
Nonmetallic Mineral Product Manufacturing (NAICS 327)	0.00	0.00	0.00	0.00	1.51	1.51	98.49
Rental and Leasing Services (NAICS 532)	0.00	0.41	64.05	0.00	0.00	64.47	35.53
Support Activities for Transportation (NAICS 488)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Wood Product Manufacturing (NAICS 321)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Couriers and Messengers (NAICS 492)	0.00	0.00	0.00	0.00	11.40	11.40	88.60
Printing and Related Support Activities (NAICS 323)	0.00	3.65	0.00	0.00	2.37	6.02	93.98
Hospitals (NAICS 622)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Real Estate (NAICS 531)	5.10	0.00	0.00	0.00	0.00	5.10	94.90
Warehousing and Storage (NAICS 493)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Repair and Maintenance (NAICS 811)	0.00	0.70	0.22	0.00	0.68	1.60	98.40
Food Manufacturing (NAICS 311)	0.00	6.02	0.00	0.00	0.00	6.02	93.98
Electronics and Appliance Stores (NAICS 443)	0.00	0.00	49.64	0.00	0.00	49.64	50.36
Other Information Services (NAICS 519)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Textile Mills (NAICS 313)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Forestry and Logging (NAICS 113)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Nonstore Retailers (NAICS 454)	0.00	0.00	0.00	0.00	0.01	0.01	99.99
Beverage and Tobacco Product Manufacturing (NAICS 312)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Motion Picture and Sound Recording Industries (NAICS 512)	0.00	0.00	0.00	0.00	14.06	14.06	85.94
Accommodation (NAICS 721)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Miscellaneous Manufacturing (NAICS 339)	0.00	0.00	0.00	0.00	3.13	3.13	96.87
Broadcasting (except Internet) (NAICS 515)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Building Material and Garden Equipment and Supplies Dealers (NAICS 444)	0.00	11.27	0.00	0.00	0.00	11.27	88.73
Miscellaneous Store Retailers (NAICS 453)	0.00	0.00	86.01	0.00	0.00	86.01	13.99
Management of Companies and Enterprises (NAICS 551)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Paper Manufacturing (NAICS 322)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Furniture and Home Furnishings Stores (NAICS 442)	0.00	92.04	0.00	0.00	0.00	92.04	7.96
Performing Arts, Spectator Sports, and Related Industries (NAICS 711)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Educational Services (NAICS 611)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Food and Beverage Stores (NAICS 445)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electrical Equipment, Appliance, and Component Manufacturing (NAICS 335)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Textile Product Mills (NAICS 314)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Chemical Manufacturing (NAICS 325)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Agriculture and Forestry (NAICS 115)	0.00	0.00	0.00	0.00	68.66	68.66	31.34
Rail Transportation (NAICS 482)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Motor Vehicle and Parts Dealers (NAICS 441)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Animal Production (NAICS 112)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Utilities (NAICS 221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Plastics and Rubber Products Manufacturing (NAICS 326)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Leather and Allied Product Manufacturing (NAICS 316)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Apparel Manufacturing (NAICS 315)	0.00	0.00	0.00	0.00	100.00	100.00	0.00

M/WBE Utilization and Disparity in the State's Markets

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Clothing and Clothing Accessories Stores (NAICS 448)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

Source: See Table 7.1.

Table 7.5. Commodities—M/WBE Utilization by Industry Sub-Sector (Percentages), 2004-2008

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Merchant Wholesalers, Durable Goods (NAICS 423)	0.00	0.06	0.04	0.00	1.06	1.16	98.84
Merchant Wholesalers, Nondurable Goods (NAICS 424)	0.00	0.00	0.00	0.00	1.01	1.01	98.99
Transportation Equipment Manufacturing (NAICS 336)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Telecommunications (NAICS 517)	0.22	0.00	0.00	0.00	0.00	0.22	99.78
Professional, Scientific, and Technical Services (NAICS 541)	0.00	0.00	0.17	0.00	0.00	0.17	99.83
Beverage and Tobacco Product Manufacturing (NAICS 312)	0.00	0.00	0.00	0.00	0.49	0.49	99.51
Motor Vehicle and Parts Dealers (NAICS 441)	0.00	0.00	0.00	0.00	0.32	0.32	99.68
Specialty Trade Contractors (NAICS 238)	1.09	0.00	0.00	0.00	0.72	1.81	98.19
Utilities (NAICS 221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Chemical Manufacturing (NAICS 325)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Computer and Electronic Product Manufacturing (NAICS 334)	0.15	0.00	0.00	0.00	0.17	0.32	99.68
Rental and Leasing Services (NAICS 532)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Publishing Industries (except Internet) (NAICS 511)	0.00	0.00	0.58	0.00	0.00	0.58	99.42
Fabricated Metal Product Manufacturing (NAICS 332)	0.00	1.90	1.64	0.00	0.78	4.32	95.68
Heavy and Civil Engineering Construction (NAICS 237)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Printing and Related Support Activities (NAICS 323)	0.00	0.10	0.00	0.00	0.00	0.10	99.90
Construction of Buildings (NAICS 236)	0.00	0.00	0.00	0.00	13.66	13.66	86.34
Machinery Manufacturing (NAICS 333)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Miscellaneous Manufacturing (NAICS 339)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Administrative and Support Services (NAICS 561)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Primary Metal Manufacturing (NAICS 331)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Ambulatory Health Care Services (NAICS 621)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Paper Manufacturing (NAICS 322)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Electrical Equipment, Appliance, and Component Manufacturing (NAICS 335)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Food Manufacturing (NAICS 311)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Petroleum and Coal Products Manufacturing (NAICS 324)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Credit Intermediation and Related Activities (NAICS 522)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Furniture and Home Furnishings Stores (NAICS 442)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electronics and Appliance Stores (NAICS 443)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Repair and Maintenance (NAICS 811)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Waste Management and Remediation Services (NAICS 562)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Transportation (NAICS 488)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Wood Product Manufacturing (NAICS 321)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Insurance Carriers and Related Activities (NAICS 524)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Amusement, Gambling, and Recreation Industries (NAICS 713)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Nonmetallic Mineral Product Manufacturing (NAICS 327)	0.00	0.00	0.00	0.00	12.96	12.96	87.04
Miscellaneous Store Retailers (NAICS 453)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Furniture and Related Product Manufacturing (NAICS 337)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Data Processing, Hosting and Related Services (NAICS 518)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Health and Personal Care Stores (NAICS 446)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Social Assistance (NAICS 624)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Transit and Ground Passenger Transportation (NAICS 485)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Apparel Manufacturing (NAICS 315)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Truck Transportation (NAICS 484)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Information Services (NAICS 519)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Sub-Sector	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Textile Mills (NAICS 313)	0.00	0.00	0.00	0.00	1.05	1.05	98.95
Motion Picture and Sound Recording Industries (NAICS 512)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Plastics and Rubber Products Manufacturing (NAICS 326)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Funds, Trusts, and Other Financial Vehicles (NAICS 525)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Sporting Goods, Hobby, Book, and Music Stores (NAICS 451)	0.00	0.00	0.00	0.00	1.89	1.89	98.11
Personal and Laundry Services (NAICS 812)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Nonstore Retailers (NAICS 454)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Building Material and Garden Equipment and Supplies Dealers (NAICS 444)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Securities, Commodity Contracts, and Other Financial Investments and Related Activities (NAICS 523)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Leather and Allied Product Manufacturing (NAICS 316)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Textile Product Mills (NAICS 314)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Food Services and Drinking Places (NAICS 722)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Couriers and Messengers (NAICS 492)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Real Estate (NAICS 531)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Warehousing and Storage (NAICS 493)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

Source: See Table 7.1.

M/WBE Utilization and Disparity in the State's Markets

Table 7.6. Construction—M/WBE Utilization by Industry Group (Percentages), 2004-2008

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Highway, Street, and Bridge Construction (NAICS 2373)	0.48	0.81	0.23	0.12	0.81	2.45	97.55
Building Equipment Contractors (NAICS 2382)	6.85	4.64	0.90	0.43	2.96	15.77	84.23
Nonresidential Building Construction (NAICS 2362)	0.65	0.28	1.79	0.07	1.46	4.25	95.75
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	1.00	6.60	1.45	2.52	8.21	19.77	80.23
Building Finishing Contractors (NAICS 2383)	2.73	9.67	1.05	0.01	10.42	23.88	76.12
Other Specialty Trade Contractors (NAICS 2389)	0.73	0.51	0.38	0.12	2.03	3.76	96.24
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)	0.05	0.99	1.99	6.47	1.39	10.89	89.11
Architectural, Engineering, and Related Services (NAICS 5413)	0.10	0.81	4.43	2.12	2.11	9.58	90.42
Architectural and Structural Metals Manufacturing (NAICS 3323)	0.55	0.22	23.13	0.47	5.52	29.90	70.10
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	1.53	1.94	0.66	0.00	9.43	13.56	86.44
Other Heavy and Civil Engineering Construction (NAICS 2379)	0.99	4.45	2.72	0.06	2.99	11.21	88.79
Management, Scientific, and Technical Consulting Services (NAICS 5416)	0.00	0.00	33.93	0.00	0.92	34.85	65.15
General Freight Trucking (NAICS 4841)	12.95	0.41	0.02	1.04	12.78	27.20	72.80
Cement and Concrete Product Manufacturing (NAICS 3273)	0.82	2.13	33.97	0.54	2.75	40.21	59.79
Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	2.70	4.39	7.30	0.00	17.06	31.44	68.56
Services to Buildings and Dwellings (NAICS 5617)	14.62	0.71	0.03	13.03	26.82	55.21	44.79
Utility System Construction (NAICS 2371)	0.00	6.86	0.00	0.00	2.56	9.41	90.59
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)	7.50	0.27	0.05	0.44	4.75	13.01	86.99
Remediation and Other Waste Management Services (NAICS 5629)	8.91	1.05	0.00	2.87	10.56	23.39	76.61

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	14.26	0.04	2.63	0.00	0.76	17.70	82.30
Commercial and Industrial Machinery and Equipment Rental and Leasing (NAICS 5324)	1.27	0.58	0.05	0.00	2.96	4.87	95.13
Waste Treatment and Disposal (NAICS 5622)	3.56	1.24	0.00	0.00	2.52	7.32	92.68
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)	0.00	0.00	0.00	0.00	9.44	9.44	90.56
Railroad Rolling Stock Manufacturing (NAICS 3365)	0.50	0.00	38.96	0.00	0.40	39.85	60.15
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	0.00	6.26	0.10	0.11	1.30	7.78	92.22
Petroleum and Petroleum Products Merchant Wholesalers (NAICS 4247)	0.00	0.00	0.00	0.00	0.78	0.78	99.22
Computer and Peripheral Equipment Manufacturing (NAICS 3341)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Business Support Services (NAICS 5614)	0.01	0.40	4.62	0.00	11.74	16.77	83.23
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance (NAICS 8113)	3.88	4.42	0.00	0.00	43.12	51.42	48.58
Computer Systems Design and Related Services (NAICS 5415)	0.00	3.06	7.03	0.00	0.00	10.09	89.91
Home Furnishings Stores (NAICS 4422)	15.75	0.00	0.00	0.00	3.47	19.22	80.78
Other Miscellaneous Manufacturing (NAICS 3399)	0.23	0.04	19.97	0.00	53.62	73.85	26.15
Boiler, Tank, and Shipping Container Manufacturing (NAICS 3324)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Fabricated Metal Product Manufacturing (NAICS 3329)	0.12	0.00	0.00	0.00	51.08	51.20	48.80
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)	0.00	0.13	0.00	0.00	1.97	2.10	97.90
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Investigation and Security Services (NAICS 5616)	0.00	1.91	0.00	0.00	0.07	1.98	98.02
Other General Purpose Machinery Manufacturing (NAICS 3339)	0.00	1.47	4.44	0.00	0.00	5.91	94.09
Other Wood Product Manufacturing (NAICS 3219)	0.00	0.39	0.00	0.00	0.00	0.39	99.61
Electrical Equipment Manufacturing (NAICS 3353)	0.00	0.00	28.76	0.00	1.12	29.88	70.12
Communications Equipment Manufacturing (NAICS 3342)	13.61	0.00	0.00	0.00	0.01	13.61	86.39
Depository Credit Intermediation (NAICS 5221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Advertising, Public Relations, and Related Services (NAICS 5418)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Insurance Carriers (NAICS 5241)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)	0.00	0.00	0.00	0.00	9.88	9.88	90.12
Building Material and Supplies Dealers (NAICS 4441)	0.00	0.00	0.00	8.78	6.34	15.12	84.88
Plastics Product Manufacturing (NAICS 3261)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Specialized Design Services (NAICS 5414)	1.84	0.00	0.00	0.00	0.00	1.84	98.16
Employment Services (NAICS 5613)	4.14	0.00	0.00	0.00	0.00	4.14	95.86
Waste Collection (NAICS 5621)	2.33	0.00	0.00	0.00	0.00	2.33	97.67
Electric Lighting Equipment Manufacturing (NAICS 3351)	16.77	0.00	0.04	0.00	0.00	16.81	83.19
Chemical and Allied Products Merchant Wholesalers (NAICS 4246)	0.00	0.00	4.59	0.00	52.99	57.58	42.42
Other Electrical Equipment and Component Manufacturing (NAICS 3359)	0.00	0.00	0.00	0.00	2.16	2.16	97.84
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing (NAICS 3334)	0.00	0.00	0.00	0.00	4.55	4.55	95.45
Steel Product Manufacturing from Purchased Steel (NAICS 3312)	0.00	0.00	0.00	0.00	80.26	80.26	19.74

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Glass and Glass Product Manufacturing (NAICS 3272)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Rubber Product Manufacturing (NAICS 3262)	0.00	0.00	0.00	0.00	0.55	0.55	99.45
Paper and Paper Product Merchant Wholesalers (NAICS 4241)	27.90	0.00	0.00	0.00	1.87	29.77	70.23
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)	0.00	0.00	64.90	0.00	0.00	64.90	35.10
Miscellaneous Nondurable Goods Merchant Wholesalers (NAICS 4249)	0.00	0.36	0.00	0.00	2.71	3.07	96.93
Land Subdivision (NAICS 2372)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Agriculture, Construction, and Mining Machinery Manufacturing (NAICS 3331)	0.00	0.00	0.00	0.00	4.14	4.14	95.86
Clay Product and Refractory Manufacturing (NAICS 3271)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Nonmetallic Mineral Mining and Quarrying (NAICS 2123)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Nonmetallic Mineral Product Manufacturing (NAICS 3279)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Industrial Machinery Manufacturing (NAICS 3332)	0.00	0.00	0.00	0.00	0.78	0.78	99.22
Commercial and Service Industry Machinery Manufacturing (NAICS 3333)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Spring and Wire Product Manufacturing (NAICS 3326)	0.00	0.00	0.00	0.00	93.14	93.14	6.86
Wired Telecommunications Carriers (NAICS 5171)	0.00	0.00	0.00	0.00	13.02	13.02	86.98
Office Furniture (including Fixtures) Manufacturing (NAICS 3372)	0.00	0.00	0.00	0.00	37.12	37.12	62.88
Scientific Research and Development Services (NAICS 5417)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Offices of Real Estate Agents and Brokers (NAICS 5312)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Automotive Equipment Rental and Leasing (NAICS 5321)	0.00	0.00	0.00	0.00	2.73	2.73	97.27
Support Activities for Forestry (NAICS 1153)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Legal Services (NAICS 5411)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electric Power Generation, Transmission and Distribution (NAICS 2211)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Lessors of Real Estate (NAICS 5311)	0.00	0.00	0.00	0.00	2.19	2.19	97.81
Foundries (NAICS 3315)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Lawn and Garden Equipment and Supplies Stores (NAICS 4442)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)	0.00	0.00	0.00	0.00	0.63	0.63	99.37
Iron and Steel Mills and Ferroalloy Manufacturing (NAICS 3311)	0.00	94.98	0.00	0.00	0.00	94.98	5.02
Automotive Repair and Maintenance (NAICS 8111)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Converted Paper Product Manufacturing (NAICS 3222)	0.00	0.00	0.00	0.00	0.08	0.08	99.92
Petroleum and Coal Products Manufacturing (NAICS 3241)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Mining (NAICS 2131)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Natural Gas Distribution (NAICS 2212)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Paint, Coating, and Adhesive Manufacturing (NAICS 3255)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Crop Production (NAICS 1151)	0.00	0.00	0.00	0.00	83.25	83.25	16.75
Securities and Commodity Contracts Intermediation and Brokerage (NAICS 5231)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Professional, Scientific, and Technical Services (NAICS 5419)	0.00	4.34	0.00	0.00	16.83	21.17	78.83
Support Activities for Road Transportation (NAICS 4884)	0.00	0.00	0.00	0.00	4.57	4.57	95.43
Forging and Stamping (NAICS 3321)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Facilities Support Services (NAICS 5612)	0.00	0.00	0.00	0.00	23.90	23.90	76.10
Other Personal Services (NAICS 8129)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Printing and Related Support Activities (NAICS 3231)	0.00	0.00	12.84	0.00	52.56	65.41	34.59
Motor Vehicle Body and Trailer Manufacturing (NAICS 3362)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Telecommunications (NAICS 5179)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Electronics and Appliance Stores (NAICS 4431)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Basic Chemical Manufacturing (NAICS 3251)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Furniture Stores (NAICS 4421)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Alumina and Aluminum Production and Processing (NAICS 3313)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Aerospace Product and Parts Manufacturing (NAICS 3364)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Business Schools and Computer and Management Training (NAICS 6114)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Transit and Ground Passenger Transportation (NAICS 4859)	0.00	0.00	96.62	0.00	0.00	96.62	3.38
Sporting Goods, Hobby, and Musical Instrument Stores (NAICS 4511)	0.00	0.00	0.00	0.00	96.05	96.05	3.95
Metalworking Machinery Manufacturing (NAICS 3335)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Crop Farming (NAICS 1119)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Greenhouse, Nursery, and Floriculture Production (NAICS 1114)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Chemical Product and Preparation Manufacturing (NAICS 3259)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Drugs and Druggists' Sundries Merchant Wholesalers (NAICS 4242)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Semiconductor and Other Electronic Component Manufacturing (NAICS 3344)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Medical and Diagnostic Laboratories (NAICS 6215)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing (NAICS 3252)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Textile Product Mills (NAICS 3149)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Textile Furnishings Mills (NAICS 3141)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Rail Transportation (NAICS 4821)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Cable and Other Subscription Programming (NAICS 5152)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Travel Arr. and Reservation Services (NAICS 5615)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Coating, Engraving, Heat Treating, and Allied Activities (NAICS 3328)	0.00	0.00	0.00	0.00	13.99	13.99	86.01
Automobile Dealers (NAICS 4411)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Traveler Accommodation (NAICS 7211)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Couriers and Express Delivery Services (NAICS 4921)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Freight Transportation Arrangement (NAICS 4885)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Software Publishers (NAICS 5112)	0.00	0.00	0.00	65.64	0.00	65.64	34.36
Nondepository Credit Intermediation (NAICS 5222)	0.00	0.00	35.43	0.00	0.00	35.43	64.57
Other Motor Vehicle Dealers (NAICS 4412)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Textile and Fabric Finishing and Fabric Coating Mills (NAICS 3133)	0.00	0.00	0.00	0.00	15.15	15.15	84.85
Personal and Household Goods Repair and Maintenance (NAICS 8114)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Apparel, Piece Goods, and Notions Merchant Wholesalers (NAICS 4243)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Furniture Related Product Manufacturing (NAICS 3379)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Grocery and Related Product Merchant Wholesalers (NAICS 4244)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Direct Selling Establishments (NAICS 4543)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Specialty Food Stores (NAICS 4452)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Vocational Rehabilitation Services (NAICS 6243)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Water Transportation (NAICS 4883)	100.00	0.00	0.00	0.00	0.00	100.00	0.00
Satellite Telecommunications (NAICS 5174)	0.00	0.00	100.00	0.00	0.00	100.00	0.00
Electronic Shopping and Mail-Order Houses (NAICS 4541)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing (NAICS 3327)	0.00	0.00	0.00	0.00	78.01	78.01	21.99

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Motor Vehicle Manufacturing (NAICS 3361)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Air Transportation (NAICS 4881)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Beverage Manufacturing (NAICS 3121)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Drycleaning and Laundry Services (NAICS 8123)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Automotive Parts, Accessories, and Tire Stores (NAICS 4413)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Special Food Services (NAICS 7223)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Insurance and Employee Benefit Funds (NAICS 5251)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Audio and Video Equipment Manufacturing (NAICS 3343)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Engine, Turbine, and Power Transmission Equipment Manufacturing (NAICS 3336)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Bakeries and Tortilla Manufacturing (NAICS 3118)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Water, Sewage and Other Systems (NAICS 2213)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Sheep and Goat Farming (NAICS 1124)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Personal Care Services (NAICS 8121)	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Activities Related to Credit Intermediation (NAICS 5223)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

Source: See Table 7.1.

M/WBE Utilization and Disparity in the State's Markets

Table 7.7. CRS—M/WBE Utilization by Industry Group (Percentages), 2004-2008

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Architectural, Engineering, and Related Services (NAICS 5413)	0.43	2.38	10.53	0.20	3.02	16.57	83.43
Nonresidential Building Construction (NAICS 2362)	0.54	0.00	8.48	0.00	1.80	10.82	89.18
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	0.07	0.00	5.23	0.00	0.00	5.30	94.70
Business Support Services (NAICS 5614)	1.30	0.00	40.22	0.00	2.20	43.72	56.28
Highway, Street, and Bridge Construction (NAICS 2373)	6.45	0.00	4.97	0.05	1.03	12.50	87.50
Computer Systems Design and Related Services (NAICS 5415)	0.00	97.34	0.00	0.00	0.66	98.00	2.00
Architectural and Structural Metals Manufacturing (NAICS 3323)	0.00	0.00	0.00	0.00	99.89	99.89	0.11
Building Equipment Contractors (NAICS 2382)	9.21	0.00	0.73	0.00	10.88	20.82	79.18
Commercial and Industrial Machinery and Equipment Rental and Leasing (NAICS 5324)	40.28	0.02	0.00	0.00	0.00	40.30	59.70
Other Amusement and Recreation Industries (NAICS 7139)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Specialty Trade Contractors (NAICS 2389)	0.00	0.00	49.68	0.00	0.00	49.68	50.32
Cement and Concrete Product Manufacturing (NAICS 3273)	0.00	0.00	99.92	0.00	0.00	99.92	0.08
Management, Scientific, and Technical Consulting Services (NAICS 5416)	0.40	0.00	0.05	0.00	12.46	12.91	87.09
Remediation and Other Waste Management Services (NAICS 5629)	0.00	0.00	0.00	0.00	95.11	95.11	4.89
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Advertising, Public Relations, and Related Services (NAICS 5418)	0.00	0.01	0.00	0.00	56.39	56.40	43.60
Services to Buildings and Dwellings (NAICS 5617)	0.00	0.00	0.00	0.00	26.72	26.72	73.28
Investigation and Security Services (NAICS 5616)	0.00	3.37	0.00	0.00	4.34	7.71	92.29

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Scientific Research and Development Services (NAICS 5417)	19.42	0.00	0.00	0.00	21.91	41.33	58.67
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance (NAICS 8113)	0.00	0.00	0.00	0.00	0.23	0.23	99.77
Offices of Real Estate Agents and Brokers (NAICS 5312)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Miscellaneous Manufacturing (NAICS 3399)	0.00	0.00	20.25	0.00	13.23	33.48	66.52
Railroad Rolling Stock Manufacturing (NAICS 3365)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Printing and Related Support Activities (NAICS 3231)	0.00	78.82	0.00	0.00	0.96	79.79	20.21
Support Activities for Rail Transportation (NAICS 4882)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	3.12	27.17	0.00	0.00	0.91	31.21	68.79
Specialized Design Services (NAICS 5414)	0.00	0.00	0.00	0.00	22.69	22.69	77.31
Offices of Physicians (NAICS 6211)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Heavy and Civil Engineering Construction (NAICS 2379)	0.50	0.00	0.00	0.00	55.87	56.37	43.63
Activities Related to Real Estate (NAICS 5313)	0.00	100.00	0.00	0.00	0.00	100.00	0.00
Insurance Carriers (NAICS 5241)	0.00	0.00	35.65	0.00	0.00	35.65	64.35
Utility System Construction (NAICS 2371)	0.00	0.00	0.00	0.00	69.77	69.77	30.23
Automotive Repair and Maintenance (NAICS 8111)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Coating, Engraving, Heat Treating, and Allied Activities (NAICS 3328)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	0.00	0.00	0.00	0.00	6.33	6.33	93.67
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Offices of Other Health Practitioners (NAICS 6213)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
General Freight Trucking (NAICS 4841)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Communications Equipment Manufacturing (NAICS 3342)	0.00	0.00	0.00	0.00	17.99	17.99	82.01
Plastics Product Manufacturing (NAICS 3261)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other General Purpose Machinery Manufacturing (NAICS 3339)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Soap, Cleaning Compound, and Toilet Preparation Manufacturing (NAICS 3256)	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Data Processing, Hosting, and Related Services (NAICS 5182)	100.00	0.00	0.00	0.00	0.00	100.00	0.00
Electric Power Generation, Transmission and Distribution (NAICS 2211)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Motor Vehicle Dealers (NAICS 4412)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Facilities Support Services (NAICS 5612)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Legal Services (NAICS 5411)	0.00	46.33	25.02	0.00	0.00	71.36	28.64
Sound Recording Industries (NAICS 5122)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Special Food Services (NAICS 7223)	0.00	0.00	0.00	0.00	33.23	33.23	66.77
Other Personal Services (NAICS 8129)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Aerospace Product and Parts Manufacturing (NAICS 3364)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Grocery and Related Product Merchant Wholesalers (NAICS 4244)	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Engine, Turbine, and Power Transmission Equipment Manufacturing (NAICS 3336)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Building Finishing Contractors (NAICS 2383)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Chemical and Allied Products Merchant Wholesalers (NAICS 4246)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Cut and Sew Apparel Manufacturing (NAICS 3152)	0.00	0.00	100.00	0.00	0.00	100.00	0.00
Beverage Manufacturing (NAICS 3121)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Crop Production (NAICS 1151)	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Other Telecommunications (NAICS 5179)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Drycleaning and Laundry Services (NAICS 8123)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Chemical Product and Preparation Manufacturing (NAICS 3259)	0.00	0.00	0.00	0.00	88.31	88.31	11.69
Automotive Equipment Rental and Leasing (NAICS 5321)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Medical and Diagnostic Laboratories (NAICS 6215)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Professional, Scientific, and Technical Services (NAICS 5419)	0.00	0.00	0.00	0.00	87.67	87.67	12.33
Waste Treatment and Disposal (NAICS 5622)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Transportation Equipment Manufacturing (NAICS 3369)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Employment Services (NAICS 5613)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Forestry (NAICS 1153)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Building Material and Supplies Dealers (NAICS 4441)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)	0.00	0.00	0.00	0.00	100.00	100.00	0.00

Source: See Table 7.1.

M/WBE Utilization and Disparity in the State's Markets

Table 7.8. Services—M/WBE Utilization by Industry Group (Percentages), 2004-2008

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Drugs and Druggists' Sundries Merchant Wholesalers (NAICS 4242)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Insurance Carriers (NAICS 5241)	0.00	0.00	0.32	0.00	0.70	1.02	98.98
Nursing Care Facilities (NAICS 6231)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Advertising, Public Relations, and Related Services (NAICS 5418)	0.00	0.29	0.00	0.00	29.06	29.34	70.66
Computer Systems Design and Related Services (NAICS 5415)	0.01	0.00	3.79	0.00	1.13	4.93	95.07
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	0.00	0.00	3.20	0.00	1.50	4.70	95.30
Management, Scientific, and Technical Consulting Services (NAICS 5416)	0.02	0.01	0.19	0.00	2.51	2.73	97.27
Data Processing, Hosting, and Related Services (NAICS 5182)	0.89	0.00	0.00	0.00	0.28	1.17	98.83
Employment Services (NAICS 5613)	4.11	5.53	0.32	0.00	11.71	21.67	78.33
Other Transit and Ground Passenger Transportation (NAICS 4859)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Gambling Industries (NAICS 7132)	0.00	0.00	0.03	0.00	0.01	0.05	99.95
Depository Credit Intermediation (NAICS 5221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Architectural, Engineering, and Related Services (NAICS 5413)	0.00	0.17	9.42	0.19	1.61	11.39	88.61
Nonresidential Building Construction (NAICS 2362)	0.00	0.00	0.31	0.00	0.10	0.41	99.59
Business Support Services (NAICS 5614)	0.00	0.00	0.00	0.00	3.13	3.13	96.87
Building Equipment Contractors (NAICS 2382)	11.04	0.25	2.84	0.00	3.49	17.62	82.38
Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	0.00	0.00	0.00	0.00	41.20	41.20	58.80
Health and Personal Care Stores (NAICS 4461)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Special Food Services (NAICS 7223)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Vocational Rehabilitation Services (NAICS 6243)	0.00	0.00	0.00	0.00	99.79	99.79	0.21

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
General Freight Trucking (NAICS 4841)	0.00	3.70	0.00	0.00	0.11	3.81	96.19
Other Financial Investment Activities (NAICS 5239)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Services to Buildings and Dwellings (NAICS 5617)	0.00	0.00	0.00	0.00	1.84	1.84	98.16
Legal Services (NAICS 5411)	0.00	0.00	0.00	0.00	0.02	0.02	99.98
Travel Arrangement and Reservation Services (NAICS 5615)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Investigation and Security Services (NAICS 5616)	8.87	0.00	0.00	0.00	0.00	8.87	91.13
Other Ambulatory Health Care Services (NAICS 6219)	0.00	1.71	1.01	0.00	2.19	4.91	95.09
Railroad Rolling Stock Manufacturing (NAICS 3365)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Offices of Physicians (NAICS 6211)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Software Publishers (NAICS 5112)	0.00	0.00	2.74	0.00	17.33	20.07	79.93
Other Heavy and Civil Engineering Construction (NAICS 2379)	0.22	0.00	0.00	0.00	0.00	0.22	99.78
Waste Treatment and Disposal (NAICS 5622)	0.00	0.00	0.00	0.00	1.50	1.50	98.50
Grocery and Related Product Merchant Wholesalers (NAICS 4244)	0.00	0.00	0.12	0.00	9.62	9.75	90.25
Interurban and Rural Bus Transportation (NAICS 4852)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Drycleaning and Laundry Services (NAICS 8123)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Charter Bus Industry (NAICS 4855)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Medical and Diagnostic Laboratories (NAICS 6215)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Cement and Concrete Product Manufacturing (NAICS 3273)	0.00	0.00	0.00	0.00	1.51	1.51	98.49
Architectural and Structural Metals Manufacturing (NAICS 3323)	0.00	0.00	60.27	0.00	0.00	60.27	39.73
Other General Purpose Machinery Manufacturing (NAICS 3339)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Computer and Peripheral Equipment Manufacturing (NAICS 3341)	0.00	0.00	0.00	0.00	1.05	1.05	98.95
Commercial and Industrial Machinery and Equipment Rental and Leasing (NAICS 5324)	0.00	0.41	64.05	0.00	0.00	64.47	35.53

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Other Telecommunications (NAICS 5179)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Utility System Construction (NAICS 2371)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Wood Product Manufacturing (NAICS 3219)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Engine, Turbine, and Power Transmission Equipment Manufacturing (NAICS 3336)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Outpatient Care Centers (NAICS 6214)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Personal Services (NAICS 8129)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Building Finishing Contractors (NAICS 2383)	0.70	11.49	0.00	0.00	3.47	15.66	84.34
Freight Transportation Arrangement (NAICS 4885)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Couriers and Express Delivery Services (NAICS 4921)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Offices of Other Health Practitioners (NAICS 6213)	0.00	0.00	0.00	0.00	0.22	0.22	99.78
Other Specialty Trade Contractors (NAICS 2389)	0.00	1.79	0.50	0.00	0.00	2.29	97.71
Other Professional, Scientific, and Technical Services (NAICS 5419)	0.00	19.00	0.00	0.00	61.47	80.47	19.53
Remediation and Other Waste Management Services (NAICS 5629)	0.00	0.00	0.00	0.00	5.45	5.45	94.55
Wired Telecommunications Carriers (NAICS 5171)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Printing and Related Support Activities (NAICS 3231)	0.00	3.65	0.00	0.00	2.37	6.02	93.98
Nondepository Credit Intermediation (NAICS 5222)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Psychiatric and Substance Abuse Hospitals (NAICS 6222)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)	0.00	0.00	0.00	0.00	0.11	0.11	99.89
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)	0.00	0.00	0.00	0.00	0.01	0.01	99.99
Offices of Real Estate Agents and Brokers (NAICS 5312)	5.10	0.00	0.00	0.00	0.00	5.10	94.90
Warehousing and Storage (NAICS 4931)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Scientific Research and Development Services (NAICS 5417)	0.00	0.00	0.00	0.00	4.82	4.82	95.18
Highway, Street, and Bridge Construction (NAICS 2373)	0.00	0.00	0.00	0.00	1.26	1.26	98.74
Agencies, Brokerages, and Other Insurance Related Activities (NAICS 5242)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	0.00	0.00	0.00	0.00	0.81	0.81	99.19
Apparel, Piece Goods, and Notions Merchant Wholesalers (NAICS 4243)	0.00	0.00	0.00	0.00	1.41	1.41	98.59
Specialized Design Services (NAICS 5414)	0.00	0.00	63.22	0.00	0.02	63.24	36.76
Electronics and Appliance Stores (NAICS 4431)	0.00	0.00	49.64	0.00	0.00	49.64	50.36
Bakeries and Tortilla Manufacturing (NAICS 3118)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Information Services (NAICS 5191)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Paper and Paper Product Merchant Wholesalers (NAICS 4241)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)	4.17	0.00	0.00	0.00	48.76	52.92	47.08
Textile and Fabric Finishing and Fabric Coating Mills (NAICS 3133)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	0.00	1.55	0.00	0.00	10.94	12.49	87.51
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	0.00	0.00	0.00	0.00	4.87	4.87	95.13
Logging (NAICS 1133)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electronic Shopping and Mail-Order Houses (NAICS 4541)	0.00	0.00	0.00	0.00	0.01	0.01	99.99
Support Activities for Air Transportation (NAICS 4881)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Beverage Manufacturing (NAICS 3121)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Local Messengers and Local Delivery (NAICS 4922)	0.00	0.00	0.00	0.00	76.39	76.39	23.61

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Audio and Video Equipment Manufacturing (NAICS 3343)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Communications Equipment Manufacturing (NAICS 3342)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance (NAICS 8113)	0.00	2.93	0.91	0.00	2.85	6.69	93.31
Traveler Accommodation (NAICS 7211)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Cable and Other Subscription Programming (NAICS 5152)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Miscellaneous Manufacturing (NAICS 3399)	0.00	0.00	0.00	0.00	3.74	3.74	96.26
Sound Recording Industries (NAICS 5122)	0.00	0.00	0.00	0.00	24.62	24.62	75.38
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Motion Picture and Video Industries (NAICS 5121)	0.00	0.00	0.00	0.00	2.74	2.74	97.26
Personal Care Services (NAICS 8121)	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Personal and Household Goods Repair and Maintenance (NAICS 8114)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Waste Collection (NAICS 5621)	1.25	0.00	0.00	0.00	0.00	1.25	98.75
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	0.00	0.00	86.01	0.00	0.00	86.01	13.99
Fruit and Vegetable Preserving and Specialty Food Manufacturing (NAICS 3114)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)	0.00	0.00	0.00	0.00	46.85	46.85	53.15
Building Material and Supplies Dealers (NAICS 4441)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Management of Companies and Enterprises (NAICS 5511)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Miscellaneous Nondurable Goods Merchant Wholesalers (NAICS 4249)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Dairy Product Manufacturing (NAICS 3115)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Converted Paper Product Manufacturing (NAICS 3222)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Animal Food Manufacturing (NAICS 3111)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Home Furnishings Stores (NAICS 4422)	0.00	92.04	0.00	0.00	0.00	92.04	7.96
Home Health Care Services (NAICS 6216)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Animal Slaughtering and Processing (NAICS 3116)	0.00	98.84	0.00	0.00	0.00	98.84	1.16
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)	0.00	0.00	0.00	0.00	1.55	1.55	98.45
Business Schools and Computer and Management Training (NAICS 6114)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Specialty Food Stores (NAICS 4452)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Activities Related to Credit Intermediation (NAICS 5223)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electrical Equipment Manufacturing (NAICS 3353)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Textile Product Mills (NAICS 3149)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Independent Artists, Writers, and Performers (NAICS 7115)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Medical Equipment and Supplies Manufacturing (NAICS 3391)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Radio and Television Broadcasting (NAICS 5151)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures (NAICS 7114)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Boiler, Tank, and Shipping Container Manufacturing (NAICS 3324)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers (NAICS 4248)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Rail Transportation (NAICS 4821)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Crop Production (NAICS 1151)	0.00	0.00	0.00	0.00	100.00	100.00	0.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Lawn and Garden Equipment and Supplies Stores (NAICS 4442)	0.00	87.33	0.00	0.00	0.00	87.33	12.67
Automotive Parts, Accessories, and Tire Stores (NAICS 4413)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Animal Production (NAICS 1129)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Coating, Engraving, Heat Treating, and Allied Activities (NAICS 3328)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Pharmaceutical and Medicine Manufacturing (NAICS 3254)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Soap, Cleaning Compound, and Toilet Preparation Manufacturing (NAICS 3256)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Forestry (NAICS 1153)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Direct Selling Establishments (NAICS 4543)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electric Power Generation, Transmission and Distribution (NAICS 2211)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
General Medical and Surgical Hospitals (NAICS 6221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Industrial Machinery Manufacturing (NAICS 3332)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Forging and Stamping (NAICS 3321)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Rubber Product Manufacturing (NAICS 3262)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing (NAICS 3334)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Footwear Manufacturing (NAICS 3162)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Full-Service Restaurants (NAICS 7221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Road Transportation (NAICS 4884)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Petroleum and Petroleum Products Merchant Wholesalers (NAICS 4247)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Plastics Product Manufacturing (NAICS 3261)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Sugar and Confectionery Product Manufacturing (NAICS 3113)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Cut and Sew Apparel Manufacturing (NAICS 3152)	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Shoe Stores (NAICS 4482)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Transportation Equipment Manufacturing (NAICS 3369)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Chemical and Allied Products Merchant Wholesalers (NAICS 4246)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

Source: See Table 7.1.

M/WBE Utilization and Disparity in the State's Markets

Table 7.9. Commodities—M/WBE Utilization by Industry Group (Percentages), 2004-2008

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Professional and Commercial Equipment and Supplies Merchant Wholesalers (NAICS 4234)	0.00	0.08	0.06	0.00	0.84	0.98	99.02
Petroleum and Petroleum Products Merchant Wholesalers (NAICS 4247)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Railroad Rolling Stock Manufacturing (NAICS 3365)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Wired Telecommunications Carriers (NAICS 5171)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Motor Vehicle Manufacturing (NAICS 3361)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers (NAICS 4231)	0.00	0.00	0.00	0.00	1.37	1.37	98.63
Beverage Manufacturing (NAICS 3121)	0.00	0.00	0.00	0.00	0.49	0.49	99.51
Miscellaneous Nondurable Goods Merchant Wholesalers (NAICS 4249)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Machinery, Equipment, and Supplies Merchant Wholesalers (NAICS 4238)	0.00	0.00	0.00	0.00	1.47	1.47	98.53
Automobile Dealers (NAICS 4411)	0.00	0.00	0.00	0.00	0.32	0.32	99.68
Natural Gas Distribution (NAICS 2212)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Chemical and Allied Products Merchant Wholesalers (NAICS 4246)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Building Equipment Contractors (NAICS 2382)	1.67	0.00	0.00	0.00	0.59	2.27	97.73
Software Publishers (NAICS 5112)	0.00	0.00	0.68	0.00	0.00	0.68	99.32
Commercial and Industrial Machinery and Equipment Rental and Leasing (NAICS 5324)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Communications Equipment Manufacturing (NAICS 3342)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Computer Systems Design and Related Services (NAICS 5415)	0.00	0.00	0.43	0.00	0.00	0.43	99.57
Paper and Paper Product Merchant Wholesalers (NAICS 4241)	0.00	0.00	0.00	0.00	14.79	14.79	85.21
Basic Chemical Manufacturing (NAICS 3251)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Electrical and Electronic Goods Merchant Wholesalers (NAICS 4236)	0.00	0.00	0.09	0.00	2.92	3.01	96.99
Architectural and Structural Metals Manufacturing (NAICS 3323)	0.00	2.29	1.97	0.00	0.94	5.20	94.80
Printing and Related Support Activities (NAICS 3231)	0.00	0.10	0.00	0.00	0.00	0.10	99.90
Pharmaceutical and Medicine Manufacturing (NAICS 3254)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Nonresidential Building Construction (NAICS 2362)	0.00	0.00	0.00	0.00	13.66	13.66	86.34
Management, Scientific, and Technical Consulting Services (NAICS 5416)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Drugs and Druggists' Sundries Merchant Wholesalers (NAICS 4242)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Highway, Street, and Bridge Construction (NAICS 2373)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Architectural, Engineering, and Related Services (NAICS 5413)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Specialty Trade Contractors (NAICS 2389)	0.00	0.00	0.00	0.00	1.31	1.31	98.69
Scientific Research and Development Services (NAICS 5417)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Computer and Peripheral Equipment Manufacturing (NAICS 3341)	0.61	0.00	0.00	0.00	0.00	0.61	99.39
Medical Equipment and Supplies Manufacturing (NAICS 3391)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Metal and Mineral (except Petroleum) Merchant Wholesalers (NAICS 4235)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Agriculture, Construction, and Mining Machinery Manufacturing (NAICS 3331)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Petroleum and Coal Products Manufacturing (NAICS 3241)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Apparel, Piece Goods, and Notions Merchant Wholesalers (NAICS 4243)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Telecommunications (NAICS 5179)	5.95	0.00	0.00	0.00	0.00	5.95	94.05
Automotive Equipment Rental and Leasing (NAICS 5321)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Grocery and Related Product Merchant Wholesalers (NAICS 4244)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Medical and Diagnostic Laboratories (NAICS 6215)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Heavy and Civil Engineering Construction (NAICS 2379)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Converted Paper Product Manufacturing (NAICS 3222)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Animal Slaughtering and Processing (NAICS 3116)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electronics and Appliance Stores (NAICS 4431)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Lumber and Other Construction Materials Merchant Wholesalers (NAICS 4233)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Investigation and Security Services (NAICS 5616)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Iron and Steel Mills and Ferroalloy Manufacturing (NAICS 3311)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Home Furnishings Stores (NAICS 4422)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Newspaper, Periodical, Book, and Directory Publishers (NAICS 5111)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Depository Credit Intermediation (NAICS 5221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electrical Equipment Manufacturing (NAICS 3353)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Gambling Industries (NAICS 7132)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Building Finishing Contractors (NAICS 2383)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Waste Treatment and Disposal (NAICS 5622)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance (NAICS 8113)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Sawmills and Wood Preservation (NAICS 3211)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Rail Transportation (NAICS 4882)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Other Electrical Equipment and Component Manufacturing (NAICS 3359)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Household and Institutional Furniture and Kitchen Cabinet Manufacturing (NAICS 3371)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Employment Services (NAICS 5613)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Cement and Concrete Product Manufacturing (NAICS 3273)	0.00	0.00	0.00	0.00	17.24	17.24	82.76
Wireless Telecommunications Carriers (except Satellite) (NAICS 5172)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (NAICS 4237)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Chemical Product and Preparation Manufacturing (NAICS 3259)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Agencies, Brokerages, and Other Insurance Related Activities (NAICS 5242)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Miscellaneous Manufacturing (NAICS 3399)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Nondepository Credit Intermediation (NAICS 5222)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Data Processing, Hosting, and Related Services (NAICS 5182)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other General Purpose Machinery Manufacturing (NAICS 3339)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Health and Personal Care Stores (NAICS 4461)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Forging and Stamping (NAICS 3321)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Vocational Rehabilitation Services (NAICS 6243)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing (NAICS 3334)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NAICS 3345)	0.00	0.00	0.00	0.00	3.64	3.64	96.36
Motor Vehicle Body and Trailer Manufacturing (NAICS 3362)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Services to Buildings and Dwellings (NAICS 5617)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electric Power Generation, Transmission and Distribution (NAICS 2211)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Pulp, Paper, and Paperboard Mills (NAICS 3221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Bakeries and Tortilla Manufacturing (NAICS 3118)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Foundries (NAICS 3315)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Commercial and Service Industry Machinery Manufacturing (NAICS 3333)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Semiconductor and Other Electronic Component Manufacturing (NAICS 3344)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Aerospace Product and Parts Manufacturing (NAICS 3364)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Insurance Carriers (NAICS 5241)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Alumina and Aluminum Production and Processing (NAICS 3313)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Specialized Design Services (NAICS 5414)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
General Freight Trucking (NAICS 4841)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Metalworking Machinery Manufacturing (NAICS 3335)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Cut and Sew Apparel Manufacturing (NAICS 3152)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Information Services (NAICS 5191)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Furniture Stores (NAICS 4421)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Textile and Fabric Finishing and Fabric Coating Mills (NAICS 3133)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Motor Vehicle Dealers (NAICS 4412)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Automotive Repair and Maintenance (NAICS 8111)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Remediation and Other Waste Management Services (NAICS 5629)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Soap, Cleaning Compound, and Toilet Preparation Manufacturing (NAICS 3256)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Glass and Glass Product Manufacturing (NAICS 3272)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Motion Picture and Video Industries (NAICS 5121)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Ambulatory Health Care Services (NAICS 6219)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Spring and Wire Product Manufacturing (NAICS 3326)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Foundation, Structure, and Building Exterior Contractors (NAICS 2381)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Urban Transit Systems (NAICS 4851)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Plastics Product Manufacturing (NAICS 3261)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electric Lighting Equipment Manufacturing (NAICS 3351)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Investment Pools and Funds (NAICS 5259)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Electronic and Precision Equipment Repair and Maintenance (NAICS 8112)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Industrial Machinery Manufacturing (NAICS 3332)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Sporting Goods, Hobby, and Musical Instrument Stores (NAICS 4511)	0.00	0.00	0.00	0.00	1.91	1.91	98.09
Veneer, Plywood, and Engineered Wood Product Manufacturing (NAICS 3212)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Utility System Construction (NAICS 2371)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Boiler, Tank, and Shipping Container Manufacturing (NAICS 3324)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Offices of Physicians (NAICS 6211)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Personal Services (NAICS 8129)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Fabricated Metal Product Manufacturing (NAICS 3329)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Miscellaneous Durable Goods Merchant Wholesalers (NAICS 4239)	0.00	0.00	0.00	0.00	30.24	30.24	69.76
Direct Selling Establishments (NAICS 4543)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Business Support Services (NAICS 5614)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Furniture and Home Furnishing Merchant Wholesalers (NAICS 4232)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Office Furniture (including Fixtures) Manufacturing (NAICS 3372)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Water Transportation (NAICS 4883)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Engine, Turbine, and Power Transmission Equipment Manufacturing (NAICS 3336)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Road Transportation (NAICS 4884)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Building Material and Supplies Dealers (NAICS 4441)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Audio and Video Equipment Manufacturing (NAICS 3343)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Advertising, Public Relations, and Related Services (NAICS 5418)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Support Activities for Air Transportation (NAICS 4881)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Transit and Ground Passenger Transportation (NAICS 4859)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Paint, Coating, and Adhesive Manufacturing (NAICS 3255)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Charter Bus Industry (NAICS 4855)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Legal Services (NAICS 5411)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
School and Employee Bus Transportation (NAICS 4854)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Motor Vehicle Parts Manufacturing (NAICS 3363)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Apparel Accessories and Other Apparel Manufacturing (NAICS 3159)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Financial Investment Activities (NAICS 5239)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Leather and Allied Product Manufacturing (NAICS 3169)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Rubber Product Manufacturing (NAICS 3262)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Dairy Product Manufacturing (NAICS 3115)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Nonferrous Metal (except Aluminum) Production and Processing (NAICS 3314)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Food Manufacturing (NAICS 3119)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Other Wood Product Manufacturing (NAICS 3219)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

M/WBE Utilization and Disparity in the State's Markets

Industry Group	African-American	Hispanic	Asian	Native American	Non-minority female	M/WBE	Non-M/WBE
Other Textile Product Mills (NAICS 3149)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers (NAICS 4248)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Full-Service Restaurants (NAICS 7221)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Local Messengers and Local Delivery (NAICS 4922)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Personal and Household Goods Repair and Maintenance (NAICS 8114)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Lawn and Garden Equipment and Supplies Stores (NAICS 4442)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Lessors of Real Estate (NAICS 5311)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Clay Product and Refractory Manufacturing (NAICS 3271)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Fabric Mills (NAICS 3132)	0.00	0.00	0.00	0.00	100.00	100.00	0.00
Coating, Engraving, Heat Treating, and Allied Activities (NAICS 3328)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Book, Periodical, and Music Stores (NAICS 4512)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Warehousing and Storage (NAICS 4931)	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Cutlery and Handtool Manufacturing (NAICS 3322)	0.00	0.00	0.00	0.00	0.00	0.00	100.00

Source: See Table 7.1.

M/WBE Utilization and Disparity in the State's Markets

Table 7.10. Disparity Results for NYS Contracting, Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black	2.51	4.00	62.72
Hispanic	2.65	6.94	38.18 **
Asian	2.56	3.18	80.60
Native	0.86	0.21	
Minority-owned	8.59	14.34	59.91 **
White female	3.80	8.41	45.23 **
M/WBE total	12.39	22.74	54.48 **
CRS			
Black	0.93	3.19	29.24
Hispanic	3.73	4.66	80.08
Asian	10.61	4.46	
Native	0.14	0.90	15.07
Minority-owned	15.41	13.21	
Non-minority female	4.02	11.32	35.54 **
M/WBE total	19.43	24.53	79.21
Services			
Black	0.15	3.50	4.17
Hispanic	0.11	4.19	2.70
Asian	0.39	11.56	3.35
Native	0.00	0.35	0.36
Minority-owned	0.65	19.60	3.30
Non-minority female	2.18	17.44	12.50
M/WBE total	2.83	37.04	7.63
Commodities			
Black	0.05	3.66	1.25
Hispanic	0.04	4.64	0.76
Asian	0.04	7.45	0.58 **
Native	0.00	0.37	0.00
Minority-owned	0.12	16.11	0.77 **
Non-minority female	0.63	10.93	5.73 **
M/WBE total	0.75	27.05	2.77 **
All Procurement			
Black	0.70	3.71	18.96
Hispanic	0.81	5.41	14.96
Asian	1.13	7.08	15.98
Native	0.21	0.33	63.05
Minority-owned	2.85	16.53	17.27 *
Non-minority female	2.18	12.39	17.58
M/WBE total	5.03	28.92	17.40 **

Source: calculations from NERA Master Contract/Subcontract Database and NERA Baseline Business Universe.
Notes: (1) “*” indicates an adverse disparity that is statistically significant at the 10% level or better (90% confidence). “**” indicates the disparity is significant at a 5% level or better (95% confidence). “***” indicates significance at a 1% level or better (99% confidence). An empty cell in the Disparity Ratio column indicates that no adverse disparity was observed for that category.

M/WBE Utilization and Disparity in the State's Markets**Table 7.10a. Disparity Results for NYS Contracting, Overall and By Procurement Category (Excluding the Largest NYSHIP Procurements) , 2004-2008**

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black	2.51	4.00	62.72
Hispanic	2.65	6.94	38.18 **
Asian	2.56	3.18	80.60
Native	0.86	0.21	
Minority-owned	8.59	14.34	59.91 **
White female	3.80	8.41	45.23 **
M/WBE total	12.39	22.74	54.48 **
CRS			
Black	0.93	3.19	29.24
Hispanic	3.73	4.66	80.08
Asian	10.61	4.46	
Native	0.14	0.90	15.07
Minority-owned	15.41	13.21	
Non-minority female	4.02	11.32	35.54 **
M/WBE total	19.43	24.53	79.21
Services			
Black	0.39	3.50	11.06
Hispanic	0.30	4.19	7.17
Asian	1.03	11.56	8.87 *
Native	0.00	0.35	0.96
Minority-owned	1.72	19.60	8.76 **
Non-minority female	5.78	17.44	33.12 *
M/WBE total	7.49	37.04	20.23 ***
Commodities			
Black	0.05	3.66	1.25
Hispanic	0.04	4.64	0.76
Asian	0.04	7.45	0.58 **
Native	0.00	0.37	0.00
Minority-owned	0.12	16.11	0.77 **
Non-minority female	0.63	10.93	5.73 **
M/WBE total	0.75	27.05	2.77 **
All Procurement			
Black	0.97	3.71	26.15 **
Hispanic	1.12	5.41	20.63 ***
Asian	1.56	7.08	22.05 ***
Native	0.29	0.33	86.95
Minority-owned	3.94	16.53	23.81 ***
Non-minority female	3.00	12.39	24.24 ***
M/WBE total	6.94	28.92	24.00 ***

Source: calculations from NERA Master Contract/Subcontract Database and NERA Baseline Business Universe.
Notes: (1) “*” indicates an adverse disparity that is statistically significant at the 10% level or better (90% confidence). “***” indicates the disparity is significant at a 5% level or better (95% confidence). “****” indicates significance at a 1% level or better (99% confidence). An empty cell in the Disparity Ratio column indicates that no adverse disparity was observed for that category.

Table 7.11. Industry Sub-Sector Disparity Results for NYS Construction Contracting, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio	
Specialty Trade Contractors (NAICS 238)				
Black	4.23	4.24	99.77	
Hispanic	5.22	7.69	67.94	
Asian	0.97	2.77	35.09	
Native	0.79	0.13		
Minority-owned	11.21	14.83	75.63	
Non-minority female	5.00	8.11	61.69	
M/WBE total	16.21	22.93	70.70	**
Heavy and Civil Engineering Construction (NAICS 237)				
Black	0.49	1.51	32.64	
Hispanic	1.16	6.19	18.75	**
Asian	0.34	1.96	17.54	
Native	0.11	0.31	35.68	
Minority-owned	2.11	9.97	21.14	**
Non-minority female	0.97	11.03	8.77	**
M/WBE total	3.08	21.00	14.64	**
Construction of Buildings (NAICS 236)				
Black	0.65	3.45	18.94	
Hispanic	0.28	4.39	6.48	
Asian	1.79	6.01	29.78	
Native	0.07	0.16	40.82	
Minority-owned	2.79	14.01	19.94	**
Non-minority female	1.46	9.20	15.84	*
M/WBE total	4.25	23.20	18.32	**
Merchant Wholesalers, Durable Goods (NAICS 423)				
Black	2.23	4.13	54.12	
Hispanic	1.53	1.05		
Asian	2.07	10.01	20.68	
Native	3.17	0.97		
Minority-owned	9.01	16.16	55.76	
Non-minority female	5.02	8.42	59.61	
M/WBE total	14.03	24.58	57.08	
Professional, Scientific, and Technical Services (NAICS 541)				
Black	0.09	3.36	2.58	
Hispanic	0.66	4.78	13.84	
Asian	11.14	3.92		
Native	1.55	1.00		
Minority-owned	13.44	13.06		
Non-minority female	1.76	13.52	13.02	
M/WBE total	15.20	26.58	57.20	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Fabricated Metal Product Manufacturing (NAICS 332)			
Black	0.52	3.57	14.54
Hispanic	0.20	2.32	8.81
Asian	21.53	3.79	
Native	0.44	0.55	80.68
Minority-owned	22.70	10.22	
Non-minority female	7.10	14.08	50.43
M/WBE total	29.80	24.30	
Waste Management and Remediation Services (NAICS 562)			
Black	6.37	2.97	
Hispanic	1.11	7.25	15.26
Asian	0.00	7.13	0.00
Native	1.52	0.47	
Minority-owned	9.00	17.81	50.51
Non-minority female	6.73	12.54	53.65
M/WBE total	15.72	30.35	51.81
Truck Transportation (NAICS 484)			
Black	12.95	5.65	
Hispanic	0.41	9.49	4.31
Asian	0.02	4.16	0.50
Native	1.04	0.21	
Minority-owned	14.42	19.51	73.90
Non-minority female	12.78	7.46	
M/WBE total	27.20	26.98	
Administrative and Support Services (NAICS 561)			
Black	11.36	5.19	
Hispanic	0.71	11.48	6.20 **
Asian	0.66	5.45	12.04
Native	10.01	0.07	
Minority-owned	22.73	22.20	
Non-minority female	22.25	17.26	
M/WBE total	44.98	39.46	
Nonmetallic Mineral Product Manufacturing (NAICS 327)			
Black	0.79	2.25	35.02
Hispanic	2.04	1.31	
Asian	32.54	2.58	
Native	0.52	0.58	88.92
Minority-owned	35.89	6.73	
Non-minority female	2.63	10.72	24.52
M/WBE total	38.52	17.45	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Rental and Leasing Services (NAICS 532)			
Black	1.25	5.57	22.49
Hispanic	0.58	12.67	4.55
Asian	0.05	5.11	1.04
Native	0.00	0.00	0.00
Minority-owned	1.88	23.35	8.06 *
Non-minority female	2.96	18.42	16.06
M/WBE total	4.84	41.77	11.59 **
Transportation Equipment Manufacturing (NAICS 336)			
Black	0.49	1.76	28.16
Hispanic	0.00	0.89	0.00
Asian	38.67	2.12	
Native	0.00	0.73	0.00
Minority-owned	39.17	5.50	
Non-minority female	0.39	11.83	3.32
M/WBE total	39.56	17.33	
Computer and Electronic Product Manufacturing (NAICS 334)			
Black	2.63	4.47	58.70
Hispanic	0.03	2.96	1.12
Asian	0.00	6.50	0.00
Native	0.00	0.02	0.00
Minority-owned	2.66	13.95	19.07
Non-minority female	0.51	19.37	2.65
M/WBE total	3.17	33.32	9.52
Merchant Wholesalers, Nondurable Goods (NAICS 424)			
Black	1.72	3.69	46.70
Hispanic	0.02	2.70	0.76
Asian	0.45	13.78	3.29
Native	0.00	0.35	0.00
Minority-owned	2.20	20.51	10.71
Non-minority female	6.12	15.85	38.58
M/WBE total	8.31	36.37	22.86 *
Repair and Maintenance (NAICS 811)			
Black	2.76	6.01	46.00
Hispanic	3.15	12.81	24.55
Asian	0.00	5.29	0.00
Native	0.00	0.03	0.00
Minority-owned	5.91	24.14	24.47
Non-minority female	30.70	18.15	
M/WBE total	36.61	42.30	86.55

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Machinery Manufacturing (NAICS 333)			
Black	0.00	4.38	0.00
Hispanic	0.78	3.03	25.73
Asian	2.35	5.24	44.73
Native	0.00	0.09	0.00
Minority-owned	3.12	12.74	24.53
Non-minority female	1.38	19.99	6.92
M/WBE total	4.51	32.73	13.78 *
Furniture and Home Furnishings Stores (NAICS 442)			
Black	15.55	10.22	
Hispanic	0.00	1.55	0.00
Asian	0.00	7.92	0.00
Native	0.00	2.35	0.00
Minority-owned	15.55	22.04	70.55
Non-minority female	3.43	8.47	40.47
M/WBE total	18.98	30.51	62.20
Electrical Equipment, Appliance, and Component Mfg. (NAICS 335)			
Black	4.12	4.47	92.09
Hispanic	0.00	2.56	0.00
Asian	15.48	5.34	
Native	0.00	0.00	0.00
Minority-owned	19.60	12.37	
Non-minority female	1.07	19.91	5.39
M/WBE total	20.67	32.28	64.03
Miscellaneous Manufacturing (NAICS 339)			
Black	0.23	4.37	5.27
Hispanic	0.04	3.06	1.16
Asian	19.97	5.76	
Native	0.00	0.07	0.00
Minority-owned	20.23	13.26	
Non-minority female	53.62	21.86	
M/WBE total	73.85	35.12	
Telecommunications (NAICS 517)			
Black	0.00	0.85	0.00
Hispanic	0.00	6.73	0.00
Asian	0.15	9.20	1.63
Native	0.00	0.10	0.00
Minority-owned	0.15	16.89	0.89
Non-minority female	1.48	9.88	14.96
M/WBE total	1.63	26.77	6.08

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Wood Product Manufacturing (NAICS 321)			
Black	0.00	4.14	0.00
Hispanic	0.39	2.74	14.23
Asian	0.00	8.64	0.00
Native	0.00	0.01	0.00
Minority-owned	0.39	15.53	2.51
Non-minority female	0.00	18.39	0.00
M/WBE total	0.39	33.92	1.15
Plastics and Rubber Products Manufacturing (NAICS 326)			
Black	0.00	5.36	0.00
Hispanic	0.00	2.79	0.00
Asian	0.00	4.85	0.00
Native	0.00	0.09	0.00
Minority-owned	0.00	13.10	0.00
Non-minority female	0.16	19.97	0.79
M/WBE total	0.16	33.07	0.48
Credit Intermediation and Related Activities (NAICS 522)			
Black	0.00	4.88	0.00
Hispanic	0.00	7.10	0.00
Asian	0.21	0.13	
Native	0.00	0.00	0.00
Minority-owned	0.21	12.11	1.73
White female	0.00	14.32	0.00
M/WBE total	0.21	26.43	0.79
Building Material and Garden Eqpm. and Supplies Dealers (NAICS 444)			
Black	0.00	9.93	0.00
Hispanic	0.00	1.37	0.22
Asian	0.00	7.89	0.00
Native	7.80	2.38	
Minority-owned	7.80	21.57	36.17
Non-minority female	5.63	8.26	68.23
M/WBE total	13.43	29.82	45.05
Insurance Carriers and Related Activities (NAICS 524)			
Black	0.00	5.29	0.00
Hispanic	0.00	6.53	0.00
Asian	0.00	1.16	0.00
Native	0.00	0.11	0.00
Minority-owned	0.00	13.10	0.00
Non-minority female	0.00	15.20	0.00
M/WBE total	0.00	28.29	0.00

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Primary Metal Manufacturing (NAICS 331)			
Black	0.00	3.87	0.00
Hispanic	10.95	2.01	
Asian	0.00	8.82	0.00
Native	0.00	0.00	
Minority-owned	10.95	14.70	74.46
Non-minority female	54.95	19.57	
M/WBE total	65.90	34.27	
Furniture and Related Product Manufacturing (NAICS 337)			
Black	0.00	4.63	0.00
Hispanic	0.00	2.94	0.00
Asian	39.35	5.83	
Native	0.00	0.17	0.00
Minority-owned	39.35	13.57	
Non-minority female	14.31	18.93	75.60
M/WBE total	53.67	32.50	
Real Estate (NAICS 531)			
Black	0.00	5.01	0.00
Hispanic	0.00	7.01	0.00
Asian	0.00	0.52	0.00
Native	0.00	0.01	0.00
Minority-owned	0.00	12.55	0.00
Non-minority female	0.90	17.51	5.15
M/WBE total	0.90	30.06	3.00
Mining (except Oil and Gas) (NAICS 212)			
Black	0.00	1.05	0.00
Hispanic	0.00	2.31	0.00
Asian	0.00	7.18	0.00
Native	0.00	0.00	
Minority-owned	0.00	10.54	0.00
Non-minority female	0.00	14.66	0.00
M/WBE total	0.00	25.20	0.00
Support Activities for Agriculture and Forestry (NAICS 115)			
Black	0.00	2.13	0.00
Hispanic	0.00	4.60	0.00
Asian	0.00	6.25	0.00
Native	0.00	0.00	
Minority-owned	0.00	12.98	0.00
Non-minority female	21.48	14.00	
M/WBE total	21.48	26.98	79.62

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Utilities (NAICS 221)			
Black	0.00	1.22	0.00
Hispanic	0.00	6.79	0.00
Asian	0.00	8.09	0.00
Native	0.00	0.01	0.00
Minority-owned	0.00	16.11	0.00
Non-minority female	0.00	8.84	0.00
M/WBE total	0.00	24.96	0.00
Chemical Manufacturing (NAICS 325)			
Black	0.00	4.13	0.00
Hispanic	0.00	2.08	0.00
Asian	0.00	5.45	0.00
Native	0.00	0.37	0.00
Minority-owned	0.00	12.03	0.00
Non-minority female	0.00	18.62	0.00
M/WBE total	0.00	30.65	0.00
Paper Manufacturing (NAICS 322)			
Black	0.00	6.26	0.00
Hispanic	0.00	2.36	0.00
Asian	0.00	4.10	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	12.72	0.00
Non-minority female	0.08	22.05	0.36
M/WBE total	0.08	34.77	0.23
Petroleum and Coal Products Manufacturing (NAICS 324)			
Black	0.00	4.01	0.00
Hispanic	0.00	2.09	0.00
Asian	0.00	4.42	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	10.52	0.00
Non-minority female	0.00	18.14	0.00
M/WBE total	0.00	28.66	0.00
Support Activities for Mining (NAICS 213)			
Black	0.00	1.91	0.00
Hispanic	0.00	2.29	0.00
Asian	0.00	6.57	0.00
Native	0.00	0.10	0.00
Minority-owned	0.00	10.86	0.00
Non-minority female	0.00	9.40	0.00
M/WBE total	0.00	20.26	0.00

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Support Activities for Transportation (NAICS 488)			
Black	5.10	4.03	
Hispanic	0.00	11.01	0.00
Asian	0.00	6.61	0.00
Native	0.00	0.13	0.00
Minority-owned	5.10	21.78	23.43
Non-minority female	3.60	15.09	23.86
M/WBE total	8.70	36.87	23.60
Securities, Commodity, and Other Financial Investments and Related Activities (NAICS 523)			
Black	0.00	5.16	0.00
Hispanic	0.00	7.11	0.00
Asian	0.00	0.29	0.00
Native	0.00	0.01	0.00
Minority-owned	0.00	12.57	0.00
Non-minority female	0.00	14.90	0.00
M/WBE total	0.00	27.47	0.00
Publishing Industries (except Internet) (NAICS 511)			
Black	0.00	4.34	0.00
Hispanic	0.00	2.63	0.00
Asian	0.00	5.91	0.00
Native	9.66	0.05	
Minority-owned	9.66	12.92	74.80
Non-minority female	0.00	22.66	0.00
M/WBE total	9.66	35.58	27.16
Personal and Laundry Services (NAICS 812)			
Black	0.00	5.54	0.00
Hispanic	0.00	13.41	0.00
Asian	0.00	5.17	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	24.13	0.00
Non-minority female	0.15	16.80	0.87
M/WBE total	0.15	40.93	0.36
Printing and Related Support Activities (NAICS 323)			
Black	0.00	7.22	0.00
Hispanic	0.00	11.68	0.00
Asian	12.84	5.91	
Native	0.00	0.00	
Minority-owned	12.84	24.81	51.76
Non-minority female	52.56	20.38	
M/WBE total	65.41	45.20	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Crop Production (NAICS 111)			
Black	0.00	0.21	0.00
Hispanic	0.00	2.48	0.00
Asian	0.00	6.80	0.00
Native	0.00	0.01	0.00
Minority-owned	0.00	9.50	0.00
Non-minority female	0.00	13.32	0.00
M/WBE total	0.00	22.82	0.00
Electronics and Appliance Stores (NAICS 443)			
Black	0.00	10.37	0.00
Hispanic	0.00	1.08	0.00
Asian	0.00	8.77	0.00
Native	0.00	2.35	0.00
Minority-owned	0.00	22.56	0.00
Non-minority female	0.00	7.32	0.00
M/WBE total	0.00	29.88	0.00
Textile Product Mills (NAICS 314)			
Black	0.00	4.91	0.00
Hispanic	0.00	2.40	0.00
Asian	0.00	5.64	0.00
Native	0.00	0.04	0.00
Minority-owned	0.00	12.99	0.00
Non-minority female	0.00	25.25	0.00
M/WBE total	0.00	38.24	0.00 *
Educational Services (NAICS 611)			
Black	0.00	6.36	0.00
Hispanic	0.00	3.20	0.00
Asian	0.00	9.42	0.00
Native	0.00	0.17	0.00
Minority-owned	0.00	19.16	0.00
Non-minority female	0.00	30.00	0.00
M/WBE total	0.00	49.16	0.00
Transit and Ground Passenger Transportation (NAICS 485)			
Black	0.00	5.22	0.00
Hispanic	0.00	9.03	0.00
Asian	96.62	5.12	
Native	0.00	0.43	0.00
Minority-owned	96.62	19.81	
Non-minority female	0.00	8.92	0.00
M/WBE total	96.62	28.73	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Sporting Goods, Hobby, Book, and Music Stores (NAICS 451)			
Black	0.00	9.47	0.00
Hispanic	0.00	2.31	0.00
Asian	0.00	7.93	0.00
Native	0.00	2.19	0.00
Minority-owned	0.00	21.90	0.00
Non-minority female	96.05	9.17	
M/WBE total	96.05	31.07	
Motor Vehicle and Parts Dealers (NAICS 441)			
Black	0.00	5.08	0.00
Hispanic	0.00	2.31	0.00
Asian	0.00	5.45	0.00
Native	0.00	1.10	0.00
Minority-owned	0.00	13.94	0.00
Non-minority female	0.00	5.89	0.00
M/WBE total	0.00	19.83	0.00
Ambulatory Health Care Services (NAICS 621)			
Black	0.00	4.16	0.00
Hispanic	0.00	0.36	0.00
Asian	0.00	6.08	0.00
Native	0.00	1.02	0.00
Minority-owned	0.00	11.62	0.00
Non-minority female	0.00	13.12	0.00
M/WBE total	0.00	24.74	0.00
Rail Transportation (NAICS 482)			
Black	0.00	0.11	0.00
Hispanic	0.00	6.12	0.00
Asian	0.00	9.04	0.00
Native	0.00	0.00	
Minority-owned	0.00	15.27	0.00
Non-minority female	0.00	10.04	0.00
M/WBE total	0.00	25.32	0.00
Broadcasting (except Internet) (NAICS 515)			
Black	0.00	0.59	0.00
Hispanic	0.00	6.14	0.00
Asian	0.00	9.29	0.00
Native	0.00	0.00	
Minority-owned	0.00	16.02	0.00
Non-minority female	0.00	9.79	0.00
M/WBE total	0.00	25.82	0.00

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Accommodation (NAICS 721)			
Black	0.00	5.57	0.00
Hispanic	0.00	12.44	0.00
Asian	0.00	6.00	0.00
Native	0.00	0.03	0.00
Minority-owned	0.00	24.04	0.00
Non-minority female	0.00	17.90	0.00
M/WBE total	0.00	41.94	0.00
Couriers and Messengers (NAICS 492)			
Black	0.00	0.85	0.00
Hispanic	0.00	6.89	0.00
Asian	0.00	10.19	0.00
Native	0.00	0.20	0.00
Minority-owned	0.00	18.13	0.00
Non-minority female	0.00	11.31	0.00
M/WBE total	0.00	29.44	0.00
Nonstore Retailers (NAICS 454)			
Black	0.00	8.17	0.00
Hispanic	0.00	2.97	0.00
Asian	0.00	6.52	0.00
Native	0.00	1.37	0.00
Minority-owned	0.00	19.03	0.00
Non-minority female	0.00	20.67	0.00
M/WBE total	0.00	39.70	0.00
Textile Mills (NAICS 313)			
Black	0.00	10.71	0.00
Hispanic	0.00	0.49	0.00
Asian	0.00	7.88	0.00
Native	0.00	2.28	0.00
Minority-owned	0.00	21.36	0.00
Non-minority female	15.15	8.07	
M/WBE total	15.15	29.42	51.49
Food and Beverage Stores (NAICS 445)			
Black	0.00	9.54	0.00
Hispanic	0.00	1.57	0.00
Asian	0.00	9.00	0.00
Native	0.00	2.22	0.00
Minority-owned	0.00	22.34	0.00
Non-minority female	0.00	10.63	0.00
M/WBE total	0.00	32.96	0.00

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Social Assistance (NAICS 624)			
Black	0.00	4.79	0.00
Hispanic	0.00	2.29	0.00
Asian	0.00	6.55	0.00
Native	0.00	0.15	0.00
Minority-owned	0.00	13.78	0.00
Non-minority female	0.00	22.33	0.00
M/WBE total	0.00	36.11	0.00
Beverage and Tobacco Product Manufacturing (NAICS 312)			
Black	0.00	8.16	0.00
Hispanic	0.00	1.99	0.00
Asian	0.00	3.99	0.00
Native	0.00	0.00	
Minority-owned	0.00	14.14	0.00
Non-minority female	0.00	18.04	0.00
M/WBE total	0.00	32.18	0.00
Food Services and Drinking Places (NAICS 722)			
Black	0.00	7.29	0.00
Hispanic	0.00	7.04	0.00
Asian	0.00	5.84	0.00
Native	0.00	0.79	0.00
Minority-owned	0.00	20.96	0.00
Non-minority female	0.00	20.10	0.00
M/WBE total	0.00	41.06	0.00
Funds, Trusts, and Other Financial Vehicles (NAICS 525)			
Black	0.00	4.76	0.00
Hispanic	0.00	7.14	0.00
Asian	0.00	0.00	
Native	0.00	0.00	
Minority-owned	0.00	11.90	0.00
Non-minority female	0.00	14.29	0.00
M/WBE total	0.00	26.19	0.00
Food Manufacturing (NAICS 311)			
Black	0.00	10.00	0.00
Hispanic	0.00	2.88	0.00
Asian	0.00	7.97	0.00
Native	0.00	2.32	0.00
Minority-owned	0.00	23.17	0.00
Non-minority female	0.00	9.60	0.00
M/WBE total	0.00	32.77	0.00

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Animal Production (NAICS 112)			
Black	0.00	0.00	
Hispanic	0.00	2.52	0.00
Asian	0.00	7.85	0.00
Native	0.00	0.00	
Minority-owned	0.00	10.37	0.00
Non-minority female	0.00	20.06	0.00
M/WBE total	0.00	30.43	0.00

Source and Notes: See Table 7.10.

Table 7.12. Industry Sub-Sector Disparity Results for NYS CRS Contracting, 2004-2008

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index	
Professional, Scientific, and Technical Services (NAICS 541)				
Black	0.45	3.19	14.02	
Hispanic	5.20	4.55		
Asian	10.08	4.06		
Native	0.19	1.05	18.60	
Minority-owned	15.92	12.84		
Non-minority female	3.27	12.04	27.13	**
M/WBE total	19.18	24.88	77.10	
Construction of Buildings (NAICS 236)				
Black	0.54	3.45	15.65	
Hispanic	0.00	4.39	0.00	
Asian	8.48	6.01		
Native	0.00	0.16	0.00	
Minority-owned	9.02	14.01	64.41	
Non-minority female	1.80	9.20	19.56	
M/WBE total	10.82	23.20	46.64	
Merchant Wholesalers, Durable Goods (NAICS 423)				
Black	0.07	1.36	4.99	
Hispanic	0.00	1.24	0.00	
Asian	4.99	12.96	38.46	
Native	0.00	0.43	0.00	
Minority-owned	5.05	16.00	31.59	
Non-minority female	0.02	9.31	0.25	
M/WBE total	5.08	25.30	20.06	
Administrative and Support Services (NAICS 561)				
Black	1.18	6.18	19.15	
Hispanic	0.14	11.11	1.23	
Asian	36.57	5.35		
Native	0.00	0.07	0.00	
Minority-owned	37.89	22.71		
Non-minority female	3.43	20.61	16.63	
M/WBE total	41.32	43.32	95.38	
Heavy and Civil Engineering Construction (NAICS 237)				
Black	6.26	1.48		
Hispanic	0.00	6.15	0.00	
Asian	4.81	1.90		
Native	0.05	0.31	14.73	
Minority-owned	11.12	9.85		
Non-minority female	2.96	11.09	26.71	
M/WBE total	14.08	20.94	67.23	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Specialty Trade Contractors (NAICS 238)			
Black	4.73	4.39	
Hispanic	1.36	7.65	17.78
Asian	22.74	2.47	
Native	0.00	0.09	0.00
Minority-owned	28.83	14.59	
Non-minority female	5.45	7.47	72.91
M/WBE total	34.27	22.06	
Fabricated Metal Product Manufacturing (NAICS 332)			
Black	0.00	4.71	0.00
Hispanic	0.00	3.44	0.00
Asian	0.00	4.87	0.00
Native	0.00	0.22	0.00
Minority-owned	0.00	13.24	0.00
Non-minority female	96.87	21.49	
M/WBE total	96.87	34.74	
Rental and Leasing Services (NAICS 532)			
Black	40.23	5.57	
Hispanic	0.02	12.66	0.14
Asian	0.00	5.11	0.00
Native	0.00	0.00	0.00
Minority-owned	40.24	23.34	
Non-minority female	0.00	18.43	0.00 *
M/WBE total	40.24	41.78	96.33
Amusement, Gambling, and Recreation Industries (NAICS 713)			
Black	0.00	0.68	0.00
Hispanic	0.00	6.82	0.00
Asian	0.00	8.66	0.00
Native	0.00	0.04	0.00
Minority-owned	0.00	16.20	0.00
Non-minority female	0.00	11.71	0.00
M/WBE total	0.00	27.91	0.00
Nonmetallic Mineral Product Manufacturing (NAICS 327)			
Black	0.00	1.56	0.00
Hispanic	0.00	0.78	0.00
Asian	99.92	1.95	
Native	0.00	0.78	0.00
Minority-owned	99.92	5.08	
Non-minority female	0.00	7.81	0.00
M/WBE total	99.92	12.89	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Waste Management and Remediation Services (NAICS 562)			
Black	0.00	4.71	0.00
Hispanic	0.00	7.52	0.00
Asian	0.00	5.57	0.00
Native	0.00	0.73	0.00
Minority-owned	0.00	18.53	0.00
Non-minority female	95.04	13.40	
M/WBE total	95.04	31.93	
Repair and Maintenance (NAICS 811)			
Black	0.00	5.88	0.00
Hispanic	0.00	13.04	0.00
Asian	0.00	5.24	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	24.16	0.00
Non-minority female	0.16	17.67	0.93
M/WBE total	0.16	41.83	0.39
Real Estate (NAICS 531)			
Black	0.00	5.17	0.00
Hispanic	31.09	7.00	
Asian	0.00	0.28	0.00
Native	0.00	0.01	0.00
Minority-owned	31.09	12.45	
Non-minority female	0.00	17.43	0.00
M/WBE total	31.09	29.88	
Transportation Equipment Manufacturing (NAICS 336)			
Black	0.00	1.94	0.00
Hispanic	0.00	1.20	0.00
Asian	0.00	2.41	0.00
Native	0.00	0.68	0.00
Minority-owned	0.00	6.23	0.00
Non-minority female	0.00	12.50	0.00
M/WBE total	0.00	18.74	0.00
Miscellaneous Manufacturing (NAICS 339)			
Black	0.00	4.37	0.00
Hispanic	0.00	3.08	0.00
Asian	20.25	5.79	
Native	0.00	0.07	0.00
Minority-owned	20.25	13.32	
Non-minority female	13.23	21.83	60.61
M/WBE total	33.48	35.15	95.26

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Printing and Related Support Activities (NAICS 323)			
Black	0.00	7.19	0.00
Hispanic	78.82	11.60	
Asian	0.00	5.90	0.00
Native	0.00	0.00	
Minority-owned	78.82	24.69	
Non-minority female	0.96	20.35	4.72
M/WBE total	79.79	45.04	
Support Activities for Transportation (NAICS 488)			
Black	0.00	1.71	0.00
Hispanic	0.00	6.70	0.00
Asian	0.00	8.76	0.00
Native	0.00	0.42	0.00
Minority-owned	0.00	17.60	0.00
Non-minority female	0.00	12.33	0.00
M/WBE total	0.00	29.93	0.00
Ambulatory Health Care Services (NAICS 621)			
Black	0.00	4.65	0.00
Hispanic	0.00	2.64	0.00
Asian	0.00	7.56	0.00
Native	0.00	0.03	0.00
Minority-owned	0.00	14.87	0.00
Non-minority female	0.00	25.66	0.00
M/WBE total	0.00	40.53	0.00
Insurance Carriers and Related Activities (NAICS 524)			
Black	0.00	5.27	0.00
Hispanic	0.00	6.56	0.00
Asian	35.65	1.12	
Native	0.00	0.11	0.00
Minority-owned	35.65	13.06	
Non-minority female	0.00	15.26	0.00
M/WBE total	35.65	28.32	
Computer and Electronic Product Manufacturing (NAICS 334)			
Black	0.00	4.68	0.00
Hispanic	0.00	3.53	0.00
Asian	0.00	5.64	0.00
Native	0.00	0.01	0.00
Minority-owned	0.00	13.87	0.00
Non-minority female	7.91	18.72	42.23
M/WBE total	7.91	32.59	24.26

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Machinery Manufacturing (NAICS 333)			
Black	0.00	4.24	0.00
Hispanic	0.00	2.51	0.00
Asian	0.00	5.34	0.00
Native	0.00	0.01	0.00
Minority-owned	0.00	12.09	0.00
Non-minority female	0.00	20.95	0.00
M/WBE total	0.00	33.04	0.00
Truck Transportation (NAICS 484)			
Black	0.00	5.65	0.00
Hispanic	0.00	9.49	0.00
Asian	0.00	4.16	0.00
Native	0.00	0.21	0.00
Minority-owned	0.00	19.52	0.00
Non-minority female	0.00	7.46	0.00
M/WBE total	0.00	26.98	0.00
Plastics and Rubber Products Manufacturing (NAICS 326)			
Black	0.00	4.62	0.00
Hispanic	0.00	3.17	0.00
Asian	0.00	4.92	0.00
Native	0.00	0.14	0.00
Minority-owned	0.00	12.85	0.00
Non-minority female	0.00	19.72	0.00
M/WBE total	0.00	32.58	0.00
Chemical Manufacturing (NAICS 325)			
Black	0.00	4.30	0.00
Hispanic	0.00	2.40	0.00
Asian	0.00	6.48	0.00
Native	0.00	0.53	0.00
Minority-owned	0.00	13.71	0.00
Non-minority female	99.15	23.08	
M/WBE total	99.15	36.79	
Data Processing, Hosting and Related Services (NAICS 518)			
Black	100.00	4.79	
Hispanic	0.00	6.02	0.00
Asian	0.00	8.16	0.00
Native	0.00	0.19	0.00
Minority-owned	100.00	19.16	
Non-minority female	0.00	18.76	0.00
M/WBE total	100.00	37.92	

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Utilities (NAICS 221)			
Black	0.00	0.00	
Hispanic	0.00	6.06	0.00
Asian	0.00	9.09	0.00
Native	0.00	0.00	
Minority-owned	0.00	15.15	0.00
Non-minority female	0.00	9.09	0.00
M/WBE total	0.00	24.24	0.00
Motor Vehicle and Parts Dealers (NAICS 441)			
Black	0.00	9.15	0.00
Hispanic	0.00	2.53	0.00
Asian	0.00	7.19	0.00
Native	0.00	1.99	0.00
Minority-owned	0.00	20.85	0.00
Non-minority female	0.00	9.45	0.00
M/WBE total	0.00	30.30	0.00
Motion Picture and Sound Recording Industries (NAICS 512)			
Black	0.00	5.78	0.00
Hispanic	0.00	10.58	0.00
Asian	0.00	4.71	0.00
Native	0.00	0.04	0.00
Minority-owned	0.00	21.12	0.00
Non-minority female	0.00	21.80	0.00
M/WBE total	0.00	42.92	0.00
Food Services and Drinking Places (NAICS 722)			
Black	0.00	11.07	0.00
Hispanic	0.00	0.79	0.00
Asian	0.00	8.72	0.00
Native	0.00	2.24	0.00
Minority-owned	0.00	22.82	0.00
Non-minority female	33.23	10.03	
M/WBE total	33.23	32.85	
Personal and Laundry Services (NAICS 812)			
Black	0.00	5.74	0.00
Hispanic	0.00	13.29	0.00
Asian	0.00	5.10	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	24.13	0.00
Non-minority female	0.00	17.11	0.00
M/WBE total	0.00	41.24	0.00

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Merchant Wholesalers, Nondurable Goods (NAICS 424)			
Black	0.00	6.62	0.00
Hispanic	0.00	3.06	0.00
Asian	0.00	11.92	0.00
Native	0.00	1.29	0.00
Minority-owned	0.00	22.88	0.00
Non-minority female	53.40	12.51	
M/WBE total	53.40	35.39	
Miscellaneous Store Retailers (NAICS 453)			
Black	0.00	8.76	0.00
Hispanic	0.00	2.30	0.00
Asian	0.00	8.91	0.00
Native	0.00	1.98	0.00
Minority-owned	0.00	21.95	0.00
Non-minority female	0.00	16.57	0.00
M/WBE total	0.00	38.51	0.00
Apparel Manufacturing (NAICS 315)			
Black	0.00	4.56	0.00
Hispanic	0.00	2.61	0.00
Asian	100.00	7.68	
Native	0.00	0.00	
Minority-owned	100.00	14.84	
Non-minority female	0.00	22.97	0.00
M/WBE total	100.00	37.81	
Beverage and Tobacco Product Manufacturing (NAICS 312)			
Black	0.00	4.28	0.00
Hispanic	0.00	3.66	0.00
Asian	0.00	4.80	0.00
Native	0.00	0.55	0.00
Minority-owned	0.00	13.29	0.00
Non-minority female	0.00	18.72	0.00
M/WBE total	0.00	32.01	0.00
Support Activities for Agriculture and Forestry (NAICS 115)			
Black	0.00	7.88	0.00
Hispanic	0.00	10.69	0.00
Asian	0.00	5.02	0.00
Native	0.00	0.00	
Minority-owned	0.00	23.59	0.00
Non-minority female	98.07	17.55	
M/WBE total	98.07	41.14	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Telecommunications (NAICS 517)			
Black	0.00	1.26	0.00
Hispanic	0.00	7.05	0.00
Asian	0.00	8.84	0.00
Native	0.00	0.07	0.00
Minority-owned	0.00	17.22	0.00
Non-minority female	0.00	11.37	0.00
M/WBE total	0.00	28.59	0.00
Building Material and Garden Eqpm. and Supplies Dealers (NAICS 444)			
Black	0.00	10.00	0.00
Hispanic	0.00	1.10	0.00
Asian	0.00	7.86	0.00
Native	0.00	2.42	0.00
Minority-owned	0.00	21.38	0.00
Non-minority female	0.00	8.06	0.00
M/WBE total	0.00	29.44	0.00
Publishing Industries (except Internet) (NAICS 511)			
Black	0.00	5.07	0.00
Hispanic	0.00	3.01	0.00
Asian	0.00	5.45	0.00
Native	0.00	0.09	0.00
Minority-owned	0.00	13.62	0.00
Non-minority female	100.00	20.63	
M/WBE total	100.00	34.25	

Source and Notes: See Table 7.10.

Table 7.13. Industry Sub-Sector Disparity Results for NYS Services Contracting, 2004-2008

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Merchant Wholesalers, Nondurable Goods (NAICS 424)			
Black	0.00	2.94	0.00
Hispanic	0	3.5	0
Asian	0	15.91	0
Native	0.00	0.28	0.00
Minority-owned	0.00	22.64	0.00
Non-minority female	0.01	18.14	0.06
M/WBE total	0.01	40.78	0.03
Professional, Scientific, and Technical Services (NAICS 541)			
Black	0.01	4.11	0.17
Hispanic	0.17	5.56	2.99
Asian	1.81	6.34	28.56
Native	0.01	0.57	2.12
Minority-owned	2.00	16.58	12.05
Non-minority female	12.54	16.83	74.52
M/WBE total	14.54	33.40	43.52
Insurance Carriers and Related Activities (NAICS 524)			
Black	0.00	5.97	0.00
Hispanic	0.00	5.70	0.00
Asian	0.31	2.55	12.32
Native	0.00	0.27	0.00
Minority-owned	0.31	14.50	2.17
Non-minority female	0.70	12.55	5.57
M/WBE total	1.01	27.05	3.75
Nursing and Residential Care Facilities (NAICS 623)			
Black	0.00	4.44	0.00
Hispanic	0.00	0.76	0.00
Asian	0.00	5.86	0.00
Native	0.00	0.77	0.00
Minority-owned	0.00	11.84	0.00
Non-minority female	0.00	14.71	0.00
M/WBE total	0.00	26.55	0.00
Merchant Wholesalers, Durable Goods (NAICS 423)			
Black	0.01	1.21	0.85
Hispanic	0.00	1.29	0.28
Asian	2.72	12.62	21.52
Native	0.00	0.37	0.00
Minority-owned	2.73	15.50	17.61
Non-minority female	7.12	9.49	75.01
M/WBE total	9.85	24.99	39.42

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index	
Administrative and Support Services (NAICS 561)				
Black	2.84	6.01	47.31	
Hispanic	3.03	9.53	31.84	
Asian	0.18	6.15	2.87	
Native	0.00	0.13	0.00	
Minority-owned	6.05	21.81	27.76	**
Non-minority female	7.26	20.09	36.12	*
M/WBE total	13.31	41.89	31.76	**
Data Processing, Hosting and Related Services (NAICS 518)				
Black	0.89	4.79	18.64	
Hispanic	0.00	6.02	0.00	
Asian	0.00	8.16	0.00	
Native	0.00	0.19	0.00	
Minority-owned	0.89	19.16	4.66	
Non-minority female	0.28	18.76	1.49	
M/WBE total	1.17	37.92	3.09	
Transit and Ground Passenger Transportation (NAICS 485)				
Black	0.00	4.65	0.00	
Hispanic	0.00	8.78	0.00	
Asian	0.00	5.62	0.00	
Native	0.00	0.40	0.00	
Minority-owned	0.00	19.45	0.00	
Non-minority female	0.00	9.41	0.00	
M/WBE total	0.00	28.86	0.00	
Amusement, Gambling, and Recreation Industries (NAICS 713)				
Black	0.00	3.64	0.00	
Hispanic	0.00	5.88	0.00	
Asian	0.03	7.19	0.44	
Native	0.00	0.00	0.00	
Minority-owned	0.03	16.71	0.19	
Non-minority female	0.01	13.13	0.11	
M/WBE total	0.05	29.84	0.15	
Credit Intermediation and Related Activities (NAICS 522)				
Black	0.00	4.88	0.00	
Hispanic	0.00	7.10	0.00	
Asian	0.00	0.14	0.00	
Native	0.00	0.00	0.00	
Minority-owned	0.00	12.11	0.00	
Non-minority female	0.00	14.33	0.00	
M/WBE total	0.00	26.44	0.00	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Construction of Buildings (NAICS 236)			
Black	0.00	3.45	0.00
Hispanic	0.00	4.39	0.00
Asian	0.31	6.01	5.22
Native	0.00	0.16	0.00
Minority-owned	0.31	14.01	2.24
Non-minority female	0.10	9.20	1.09
M/WBE total	0.41	23.20	1.78
Specialty Trade Contractors (NAICS 238)			
Black	9.77	4.58	
Hispanic	0.86	7.71	11.09
Asian	2.52	2.83	89.31
Native	0.00	0.10	0.00
Minority-owned	13.14	15.23	86.33
Non-minority female	3.27	8.04	40.65
M/WBE total	16.41	23.26	70.55
Health and Personal Care Stores (NAICS 446)			
Black	0.00	10.13	0.00
Hispanic	0.00	0.74	0.00
Asian	0.00	8.05	0.00
Native	0.00	2.39	0.00
Minority-owned	0.00	21.32	0.00
Non-minority female	0.00	8.19	0.00
M/WBE total	0.00	29.50	0.00
Food Services and Drinking Places (NAICS 722)			
Black	0.00	11.06	0.00
Hispanic	0.00	0.79	0.00
Asian	0.00	8.72	0.00
Native	0.00	2.24	0.00
Minority-owned	0.00	22.82	0.00
Non-minority female	0.00	10.03	0.00
M/WBE total	0.00	32.85	0.00
Social Assistance (NAICS 624)			
Black	0.00	4.79	0.00
Hispanic	0.00	2.29	0.00
Asian	0.00	6.55	0.00
Native	0.00	0.15	0.00
Minority-owned	0.00	13.78	0.00
Non-minority female	99.79	22.33	
M/WBE total	99.79	36.11	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index	
Ambulatory Health Care Services (NAICS 621)				
Black	0.00	4.52	0.00	
Hispanic	0.58	2.10	27.49	
Asian	0.34	6.96	4.87	
Native	0.00	0.20	0.00	
Minority-owned	0.92	13.78	6.65	
Non-minority female	0.76	22.36	3.38	*
M/WBE total	1.67	36.14	4.63	**
Truck Transportation (NAICS 484)				
Black	0.00	5.65	0.00	
Hispanic	3.70	9.49	39.02	
Asian	0.00	4.16	0.00	
Native	0.00	0.21	0.00	
Minority-owned	3.70	19.52	18.98	
Non-minority female	0.11	7.46	1.42	
M/WBE total	3.81	26.98	14.12	
Securities, Commodity Contracts, & Other Financial Investments and Related Activities (NAICS 523)				
Black	0.00	6.05	0.00	
Hispanic	0.00	7.10	0.00	
Asian	0.00	0.60	0.00	
Native	0.00	0.01	0.00	
Minority-owned	0.00	13.75	0.00	
Non-minority female	0.00	16.27	0.00	
M/WBE total	0.00	30.02	0.00	
Heavy and Civil Engineering Construction (NAICS 237)				
Black	0.14	1.92	7.32	
Hispanic	0.00	7.01	0.00	
Asian	0.00	2.82	0.00	
Native	0.00	0.23	0.00	
Minority-owned	0.14	11.98	1.17	
Non-minority female	0.17	9.97	1.66	
M/WBE total	0.31	21.95	1.39	
Waste Management and Remediation Services (NAICS 562)				
Black	0.02	1.64	1.22	
Hispanic	0.00	7.11	0.00	
Asian	0.00	8.24	0.00	
Native	0.00	0.28	0.00	
Minority-owned	0.02	17.26	0.12	
Non-minority female	2.35	11.68	20.10	
M/WBE total	2.37	28.94	8.18	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Transportation Equipment Manufacturing (NAICS 336)			
Black	0.00	1.74	0.00
Hispanic	0.00	0.87	0.00
Asian	0.00	2.11	0.00
Native	0.00	0.73	0.00
Minority-owned	0.00	5.45	0.00
Non-minority female	0.00	11.76	0.00
M/WBE total	0.00	17.21	0.00
Personal and Laundry Services (NAICS 812)			
Black	0.00	5.40	0.00
Hispanic	0.00	12.87	0.00
Asian	0.00	4.92	0.00
Native	0.00	0.69	0.00
Minority-owned	0.00	23.87	0.00
Non-minority female	1.76	19.26	9.12
M/WBE total	1.76	43.13	4.07
Publishing Industries (except Internet) (NAICS 511)			
Black	0.00	4.17	0.00
Hispanic	0.00	5.87	0.00
Asian	2.68	8.78	30.57
Native	0.00	0.25	0.00
Minority-owned	2.68	19.06	14.08
Non-minority female	16.97	14.38	
M/WBE total	19.65	33.44	58.75
Machinery Manufacturing (NAICS 333)			
Black	0.00	4.36	0.00
Hispanic	0.00	3.35	0.00
Asian	0.00	6.06	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	13.77	0.00
Non-minority female	0.00	18.92	0.00
M/WBE total	0.00	32.69	0.00
Computer and Electronic Product Manufacturing (NAICS 334)			
Black	0.00	4.75	0.00
Hispanic	0.00	3.41	0.00
Asian	0.00	6.83	0.00
Native	0.00	0.01	0.00
Minority-owned	0.00	15.01	0.00
Non-minority female	0.66	18.90	3.47
M/WBE total	0.66	33.91	1.93

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Telecommunications (NAICS 517)			
Black	0.00	3.01	0.00
Hispanic	0.00	7.78	0.00
Asian	0.00	7.46	0.00
Native	0.00	0.19	0.00
Minority-owned	0.00	18.45	0.00
Non-minority female	0.00	10.25	0.00
M/WBE total	0.00	28.69	0.00
Fabricated Metal Product Manufacturing (NAICS 332)			
Black	0.00	3.34	0.00
Hispanic	0.00	2.11	0.00
Asian	59.64	3.55	
Native	0.00	0.65	0.00
Minority-owned	59.64	9.64	
Non-minority female	0.00	12.54	0.00
M/WBE total	59.64	22.18	
Nonmetallic Mineral Product Manufacturing (NAICS 327)			
Black	0.00	1.93	0.00
Hispanic	0.00	1.02	0.00
Asian	0.00	2.28	0.00
Native	0.00	0.67	0.00
Minority-owned	0.00	5.91	0.00
Non-minority female	1.51	9.38	16.10
M/WBE total	1.51	15.29	9.88
Rental and Leasing Services (NAICS 532)			
Black	0.00	4.56	0.00
Hispanic	0.41	8.60	4.82
Asian	64.05	6.39	
Native	0.00	0.11	0.00
Minority-owned	64.47	19.66	
Non-minority female	0.00	15.67	0.00
M/WBE total	64.47	35.33	
Support Activities for Transportation (NAICS 488)			
Black	0.00	1.92	0.00
Hispanic	0.00	6.48	0.00
Asian	0.00	9.93	0.00
Native	0.00	0.27	0.00
Minority-owned	0.00	18.61	0.00
Non-minority female	0.00	12.00	0.00
M/WBE total	0.00	30.61	0.00

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Wood Product Manufacturing (NAICS 321)			
Black	0.00	4.13	0.00
Hispanic	0.00	2.73	0.00
Asian	0.00	8.76	0.00
Native	0.00	0.00	
Minority-owned	0.00	15.63	0.00
Non-minority female	0.00	18.32	0.00
M/WBE total	0.00	33.95	0.00
Couriers and Messengers (NAICS 492)			
Black	0.00	0.76	0.00
Hispanic	0.00	7.26	0.00
Asian	0.00	9.93	0.00
Native	0.00	0.23	0.00
Minority-owned	0.00	18.19	0.00
Non-minority female	11.40	11.20	
M/WBE total	11.40	29.39	38.79
Printing and Related Support Activities (NAICS 323)			
Black	0.00	6.80	0.00
Hispanic	3.65	10.16	35.93
Asian	0.00	5.86	0.00
Native	0.00	0.01	0.00
Minority-owned	3.65	22.84	15.98
Non-minority female	2.37	20.74	11.44
M/WBE total	6.02	43.58	13.82 *
Hospitals (NAICS 622)			
Black	0.00	4.63	0.00
Hispanic	0.00	1.21	0.00
Asian	0.00	5.72	0.00
Native	0.00	0.88	0.00
Minority-owned	0.00	12.44	0.00
Non-minority female	0.00	18.22	0.00
M/WBE total	0.00	30.66	0.00
Real Estate (NAICS 531)			
Black	5.10	4.99	
Hispanic	0.00	6.99	0.00
Asian	0.00	0.38	0.00
Native	0.00	0.02	0.00
Minority-owned	5.10	12.37	41.25
Non-minority female	0.00	18.13	0.00
M/WBE total	5.10	30.50	16.73

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index	
Warehousing and Storage (NAICS 493)				
Black	0.00	0.35	0.00	
Hispanic	0.00	6.29	0.00	
Asian	0.00	9.07	0.00	
Native	0.00	0.03	0.00	
Minority-owned	0.00	15.75	0.00	
Non-minority female	0.00	11.83	0.00	
M/WBE total	0.00	27.58	0.00	
Repair and Maintenance (NAICS 811)				
Black	0.00	6.92	0.00	
Hispanic	0.70	12.78	5.48	
Asian	0.22	5.93	3.68	
Native	0.00	0.00	0.00	
Minority-owned	0.92	25.63	3.59	
Non-minority female	0.68	17.81	3.82	
M/WBE total	1.60	43.44	3.68	**
Food Manufacturing (NAICS 311)				
Black	0.00	4.72	0.00	
Hispanic	6.02	2.39		
Asian	0.00	5.08	0.00	
Native	0.00	0.19	0.00	
Minority-owned	6.02	12.38	48.65	
Non-minority female	0.00	23.66	0.00	
M/WBE total	6.02	36.05	16.71	
Electronics and Appliance Stores (NAICS 443)				
Black	0.00	10.57	0.00	
Hispanic	0.00	1.06	0.00	
Asian	49.64	9.12		
Native	0.00	2.34	0.00	
Minority-owned	49.64	23.09		
Non-minority female	0.00	7.39	0.00	
M/WBE total	49.64	30.48		
Other Information Services (NAICS 519)				
Black	0.00	4.23	0.00	
Hispanic	0.00	6.30	0.00	
Asian	0.00	5.11	0.00	
Native	0.00	0.00		
Minority-owned	0.00	15.65	0.00	
Non-minority female	0.00	14.85	0.00	
M/WBE total	0.00	30.50	0.00	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Textile Mills (NAICS 313)			
Black	0.00	10.71	0.00
Hispanic	0.00	0.49	0.00
Asian	0.00	7.88	0.00
Native	0.00	2.28	0.00
Minority-owned	0.00	21.36	0.00
Non-minority female	0.00	8.07	0.00
M/WBE total	0.00	29.42	0.00
Forestry and Logging (NAICS 113)			
Black	0.00	4.11	0.00
Hispanic	0.00	2.36	0.00
Asian	0.00	4.52	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	10.99	0.00
Non-minority female	0.00	18.90	0.00
M/WBE total	0.00	29.89	0.00
Nonstore Retailers (NAICS 454)			
Black	0.00	9.75	0.00
Hispanic	0.00	1.90	0.00
Asian	0.00	8.49	0.00
Native	0.00	2.15	0.00
Minority-owned	0.00	22.29	0.00
Non-minority female	0.01	13.25	0.04
M/WBE total	0.01	35.54	0.02
Beverage and Tobacco Product Manufacturing (NAICS 312)			
Black	0.00	5.07	0.00
Hispanic	0.00	3.32	0.00
Asian	0.00	4.63	0.00
Native	0.00	0.44	0.00
Minority-owned	0.00	13.46	0.00
Non-minority female	0.00	18.58	0.00
M/WBE total	0.00	32.04	0.00
Motion Picture and Sound Recording Industries (NAICS 512)			
Black	0.00	6.21	0.00
Hispanic	0.00	11.47	0.00
Asian	0.00	4.93	0.00
Native	0.00	0.03	0.00
Minority-owned	0.00	22.64	0.00
Non-minority female	14.06	20.63	68.14
M/WBE total	14.06	43.27	32.49

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Accommodation (NAICS 721)			
Black	0.00	5.57	0.00
Hispanic	0.00	12.44	0.00
Asian	0.00	6.00	0.00
Native	0.00	0.03	0.00
Minority-owned	0.00	24.04	0.00
Non-minority female	0.00	17.90	0.00
M/WBE total	0.00	41.94	0.00 *
Miscellaneous Manufacturing (NAICS 339)			
Black	0.00	4.39	0.00
Hispanic	0.00	3.02	0.00
Asian	0.00	5.76	0.00
Native	0.00	0.06	0.00
Minority-owned	0.00	13.24	0.00
Non-minority female	3.13	21.55	14.54
M/WBE total	3.13	34.79	9.01
Broadcasting (except Internet) (NAICS 515)			
Black	0.00	0.63	0.00
Hispanic	0.00	6.16	0.00
Asian	0.00	9.23	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	16.02	0.00
Non-minority female	0.00	9.98	0.00
M/WBE total	0.00	26.00	0.00
Building Material and Garden Equipment and Supplies Dealers (NAICS 444)			
Black	0.00	9.96	0.00
Hispanic	11.27	1.15	
Asian	0.00	7.86	0.00
Native	0.00	2.40	0.00
Minority-owned	11.27	21.38	52.73
Non-minority female	0.00	8.23	0.00
M/WBE total	11.27	29.61	38.08
Miscellaneous Store Retailers (NAICS 453)			
Black	0.00	8.90	0.00
Hispanic	0.00	2.21	0.00
Asian	86.01	9.01	
Native	0.00	2.01	0.00
Minority-owned	86.01	22.14	
Non-minority female	0.00	15.93	0.00
M/WBE total	86.01	38.07	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Management of Companies and Enterprises (NAICS 551)			
Black	0.00	4.84	0.00
Hispanic	0.00	7.09	0.00
Asian	0.00	0.20	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	12.13	0.00
Non-minority female	0.00	15.00	0.00
M/WBE total	0.00	27.14	0.00
Paper Manufacturing (NAICS 322)			
Black	0.00	3.84	0.00
Hispanic	0.00	2.04	0.00
Asian	0.00	4.53	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	10.41	0.00
Non-minority female	0.00	22.73	0.00
M/WBE total	0.00	33.14	0.00
Furniture and Home Furnishings Stores (NAICS 442)			
Black	0.00	10.29	0.00
Hispanic	92.04	1.49	0.00
Asian	0.00	7.90	0.00
Native	0.00	2.36	0.00
Minority-owned	92.04	22.04	0.00
Non-minority female	0.00	8.01	0.00
M/WBE total	92.04	30.05	0.00
Performing Arts, Spectator Sports, and Related Industries (NAICS 711)			
Black	0.00	7.08	0.00
Hispanic	0.00	11.85	0.00
Asian	0.00	4.84	0.00
Native	0.00	0.24	0.00
Minority-owned	0.00	24.01	0.00
Non-minority female	0.00	21.37	0.00
M/WBE total	0.00	45.38	0.00
Educational Services (NAICS 611)			
Black	0.00	6.36	0.00
Hispanic	0.00	3.20	0.00
Asian	0.00	9.42	0.00
Native	0.00	0.17	0.00
Minority-owned	0.00	19.16	0.00
Non-minority female	0.00	30.00	0.00
M/WBE total	0.00	49.16	0.00

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Food and Beverage Stores (NAICS 445)			
Black	0.00	9.54	0.00
Hispanic	0.00	1.57	0.00
Asian	0.00	9.00	0.00
Native	0.00	2.22	0.00
Minority-owned	0.00	22.34	0.00
Non-minority female	0.00	10.63	0.00
M/WBE total	0.00	32.96	0.00
Electrical Equipment, Appliance, and Component Manufacturing (NAICS 335)			
Black	0.00	3.91	0.00
Hispanic	0.00	2.30	0.00
Asian	0.00	5.64	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	11.86	0.00
Non-minority female	0.00	20.53	0.00
M/WBE total	0.00	32.39	0.00
Textile Product Mills (NAICS 314)			
Black	0.00	5.41	0.00
Hispanic	0.00	2.98	0.00
Asian	0.00	6.36	0.00
Native	0.00	0.07	0.00
Minority-owned	0.00	14.82	0.00
Non-minority female	0.00	22.82	0.00
M/WBE total	0.00	37.65	0.00
Chemical Manufacturing (NAICS 325)			
Black	0.00	4.31	0.00
Hispanic	0.00	2.25	0.00
Asian	0.00	6.34	0.00
Native	0.00	0.30	0.00
Minority-owned	0.00	13.20	0.00
Non-minority female	0.00	20.34	0.00
M/WBE total	0.00	33.54	0.00
Support Activities for Agriculture and Forestry (NAICS 115)			
Black	0.00	5.54	0.00
Hispanic	0.00	8.21	0.00
Asian	0.00	5.52	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	19.27	0.00
Non-minority female	68.66	16.11	
M/WBE total	68.66	35.38	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Rail Transportation (NAICS 482)			
Black	0.00	0.11	0.00
Hispanic	0.00	6.12	0.00
Asian	0.00	9.04	0.00
Native	0.00	0.00	
Minority-owned	0.00	15.27	0.00
Non-minority female	0.00	10.04	0.00
M/WBE total	0.00	25.32	0.00
Motor Vehicle and Parts Dealers (NAICS 441)			
Black	0.00	10.28	0.00
Hispanic	0.00	1.65	0.00
Asian	0.00	7.88	0.00
Native	0.00	2.42	0.00
Minority-owned	0.00	22.23	0.00
Non-minority female	0.00	6.43	0.00
M/WBE total	0.00	28.66	0.00
Animal Production (NAICS 112)			
Black	0.00	0.05	0.00
Hispanic	0.00	2.59	0.00
Asian	0.00	6.24	0.00
Native	0.00	0.00	
Minority-owned	0.00	8.89	0.00
Non-minority female	0.00	24.15	0.00
M/WBE total	0.00	33.04	0.00
Utilities (NAICS 221)			
Black	0.00	0.11	0.00
Hispanic	0.00	6.12	0.00
Asian	0.00	9.04	0.00
Native	0.00	0.00	
Minority-owned	0.00	15.27	0.00
Non-minority female	0.00	10.01	0.00
M/WBE total	0.00	25.28	0.00
Plastics and Rubber Products Manufacturing (NAICS 326)			
Black	0.00	4.52	0.00
Hispanic	0.00	2.58	0.00
Asian	0.00	8.34	0.00
Native	0.00	0.01	0.00
Minority-owned	0.00	15.45	0.00
Non-minority female	0.00	22.17	0.00
M/WBE total	0.00	37.62	0.00

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Leather and Allied Product Manufacturing (NAICS 316)			
Black	0.00	3.87	0.00
Hispanic	0.00	1.93	0.00
Asian	0.00	4.54	0.00
Native	0.00	0.00	
Minority-owned	0.00	10.34	0.00
Non-minority female	0.00	22.54	0.00
M/WBE total	0.00	32.89	0.00
Apparel Manufacturing (NAICS 315)			
Black	0.00	5.35	0.00
Hispanic	0.00	2.16	0.00
Asian	0.00	8.05	0.00
Native	0.00	0.00	
Minority-owned	0.00	15.56	0.00
Non-minority female	100.00	31.98	
M/WBE total	100.00	47.54	
Clothing and Clothing Accessories Stores (NAICS 448)			
Black	0.00	6.65	0.00
Hispanic	0.00	8.98	0.00
Asian	0.00	6.81	0.00
Native	0.00	0.97	0.00
Minority-owned	0.00	23.42	0.00
Non-minority female	0.00	13.43	0.00
M/WBE total	0.00	36.85	0.00

Source and Notes: See Table 7.10.

Table 7.14. Industry Sub-Sector Disparity Results for NYS Commodities Contracting, 2004-2008

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index	
Merchant Wholesalers, Durable Goods (NAICS 423)				
Black	0.00	2.31	0.00	
Hispanic	0.06	1.47	3.75	
Asian	0.04	10.84	0.39	
Native	0	0.55	0	
Minority-owned	0.1	15.17	0.65	*
Non-minority female	1.06	9.66	11.00	
M/WBE total	1.16	24.83	4.67	**
Merchant Wholesalers, Nondurable Goods (NAICS 424)				
Black	0.00	3.53	0.00	
Hispanic	0.00	2.81	0.00	
Asian	0.00	13.93	0.00	
Native	0.00	0.36	0.00	
Minority-owned	0.00	20.63	0.00	*
Non-minority female	1.01	17.14	5.89	
M/WBE total	1.01	37.77	2.67	**
Transportation Equipment Manufacturing (NAICS 336)				
Black	0.00	1.88	0.00	
Hispanic	0.00	0.86	0.00	
Asian	0.00	2.19	0.00	
Native	0.00	0.76	0.00	
Minority-owned	0.00	5.69	0.00	
Non-minority female	0.00	11.87	0.00	
M/WBE total	0.00	17.56	0.00	
Telecommunications (NAICS 517)				
Black	0.22	5.44	4.10	
Hispanic	0.00	8.80	0.00	
Asian	0.00	5.55	0.00	
Native	0.00	0.36	0.00	
Minority-owned	0.22	20.14	1.11	
Non-minority female	0.00	8.70	0.00	
M/WBE total	0.22	28.84	0.77	
Professional, Scientific, and Technical Services (NAICS 541)				
Black	0.00	4.55	0.00	
Hispanic	0.00	4.66	0.00	
Asian	0.17	7.57	2.29	
Native	0.00	0.52	0.00	
Minority-owned	0.17	17.30	1.00	*
Non-minority female	0.00	17.11	0.00	*
M/WBE total	0.17	34.41	0.50	**

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index	
Beverage and Tobacco Product Manufacturing (NAICS 312)				
Black	0.00	8.15	0.00	
Hispanic	0.00	1.99	0.00	
Asian	0.00	3.99	0.00	
Native	0.00	0.00		
Minority-owned	0.00	14.14	0.00	
Non-minority female	0.49	18.04	2.70	
M/WBE total	0.49	32.18	1.51	
Motor Vehicle and Parts Dealers (NAICS 441)				
Black	0.00	1.16	0.00	
Hispanic	0.00	3.34	0.00	
Asian	0.00	3.44	0.00	
Native	0.00	0.05	0.00	
Minority-owned	0.00	7.99	0.00	
Non-minority female	0.32	5.31	5.93	
M/WBE total	0.32	13.30	2.37	
Specialty Trade Contractors (NAICS 238)				
Black	1.09	4.24	25.66	
Hispanic	0.00	7.38	0.00	
Asian	0.00	2.75	0.00	
Native	0.00	0.11	0.00	
Minority-owned	1.09	14.48	7.51	
Non-minority female	0.72	7.59	9.50	
M/WBE total	1.81	22.07	8.20	*
Utilities (NAICS 221)				
Black	0.00	3.38	0.00	
Hispanic	0.00	8.08	0.00	
Asian	0.00	6.26	0.00	
Native	0.00	0.04	0.00	
Minority-owned	0.00	17.77	0.00	
Non-minority female	0.00	7.07	0.00	
M/WBE total	0.00	24.85	0.00	
Chemical Manufacturing (NAICS 325)				
Black	0.00	3.66	0.00	
Hispanic	0.00	1.77	0.00	
Asian	0.00	4.95	0.00	
Native	0.00	1.03	0.00	
Minority-owned	0.00	11.41	0.00	
Non-minority female	0.00	14.94	0.00	
M/WBE total	0.00	26.35	0.00	**

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index	
Computer and Electronic Product Manufacturing (NAICS 334)				
Black	0.15	4.97	3.01	
Hispanic	0.00	2.97	0.00	
Asian	0.00	6.00	0.00	
Native	0.00	0.10	0.00	
Minority-owned	0.15	14.04	1.07	
Non-minority female	0.17	18.98	0.89	
M/WBE total	0.32	33.03	0.96	**
Rental and Leasing Services (NAICS 532)				
Black	0.00	5.50	0.00	
Hispanic	0.00	12.47	0.00	
Asian	0.00	5.21	0.00	
Native	0.00	0.01	0.00	
Minority-owned	0.00	23.18	0.00	
Non-minority female	0.00	17.97	0.00	
M/WBE total	0.00	41.15	0.00	**
Publishing Industries (except Internet) (NAICS 511)				
Black	0.00	4.20	0.00	
Hispanic	0.00	5.40	0.00	
Asian	0.58	8.34	6.99	
Native	0.00	0.22	0.00	
Minority-owned	0.58	18.17	3.21	
Non-minority female	0.00	15.40	0.00	
M/WBE total	0.58	33.57	1.74	*
Fabricated Metal Product Manufacturing (NAICS 332)				
Black	0.00	3.63	0.00	
Hispanic	1.90	2.20	86.62	
Asian	1.64	3.85	42.53	
Native	0.00	0.52	0.00	
Minority-owned	3.54	10.20	34.73	
Non-minority female	0.78	13.91	5.60	
M/WBE total	4.32	24.10	17.92	
Heavy and Civil Engineering Construction (NAICS 237)				
Black	0.00	1.77	0.00	
Hispanic	0.00	6.85	0.00	
Asian	0.00	1.90	0.00	
Native	0.00	0.30	0.00	
Minority-owned	0.00	10.82	0.00	
Non-minority female	0.00	10.49	0.00	
M/WBE total	0.00	21.31	0.00	

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index	
Printing and Related Support Activities (NAICS 323)				
Black	0.00	4.55	0.00	
Hispanic	0.10	2.56	3.74	
Asian	0.00	5.06	0.00	
Native	0.00	0.04	0.00	
Minority-owned	0.10	12.21	0.78	
Non-minority female	0.00	21.16	0.00	*
M/WBE total	0.10	33.36	0.29	**
Construction of Buildings (NAICS 236)				
Black	0.00	3.45	0.00	
Hispanic	0.00	4.39	0.00	
Asian	0.00	6.01	0.00	
Native	0.00	0.16	0.00	
Minority-owned	0.00	14.01	0.00	
Non-minority female	13.66	9.20		
M/WBE total	13.66	23.20	58.88	
Machinery Manufacturing (NAICS 333)				
Black	0.00	4.53	0.00	
Hispanic	0.00	2.82	0.00	
Asian	0.00	4.79	0.00	
Native	0.00	0.39	0.00	
Minority-owned	0.00	12.54	0.00	
Non-minority female	0.00	19.82	0.00	*
M/WBE total	0.00	32.36	0.00	**
Miscellaneous Manufacturing (NAICS 339)				
Black	0.00	4.24	0.00	
Hispanic	0.00	2.72	0.00	
Asian	0.00	5.50	0.00	
Native	0.00	0.02	0.00	
Minority-owned	0.00	12.48	0.00	
Non-minority female	0.00	20.99	0.00	
M/WBE total	0.00	33.47	0.00	
Administrative and Support Services (NAICS 561)				
Black	0.00	6.68	0.00	
Hispanic	0.00	10.69	0.00	
Asian	0.00	5.75	0.00	
Native	0.00	0.09	0.00	
Minority-owned	0.00	23.21	0.00	**
Non-minority female	0.00	18.40	0.00	**
M/WBE total	0.00	41.61	0.00	**

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index	
Primary Metal Manufacturing (NAICS 331)				
Black	0.00	4.20	0.00	
Hispanic	0.00	2.50	0.00	
Asian	0.00	5.63	0.00	
Native	0.00	0.00		
Minority-owned	0.00	12.33	0.00	*
Non-minority female	0.00	19.82	0.00	**
M/WBE total	0.00	32.15	0.00	**
Ambulatory Health Care Services (NAICS 621)				
Black	0.00	4.23	0.00	
Hispanic	0.00	0.73	0.00	
Asian	0.00	6.26	0.00	
Native	0.00	0.84	0.00	
Minority-owned	0.00	12.07	0.00	
Non-minority female	0.00	15.04	0.00	
M/WBE total	0.00	27.11	0.00	
Paper Manufacturing (NAICS 322)				
Black	0.00	3.77	0.00	
Hispanic	0.00	2.76	0.00	
Asian	0.00	4.92	0.00	
Native	0.00	0.01	0.00	
Minority-owned	0.00	11.45	0.00	
Non-minority female	0.00	21.85	0.00	
M/WBE total	0.00	33.30	0.00	
Electrical Equipment, Appliance, and Component Manufacturing (NAICS 335)				
Black	0.00	4.31	0.00	
Hispanic	0.00	2.28	0.00	
Asian	0.00	5.87	0.00	
Native	0.00	0.00	0.00	
Minority-owned	0.00	12.46	0.00	
Non-minority female	0.00	20.94	0.00	*
M/WBE total	0.00	33.40	0.00	**
Food Manufacturing (NAICS 311)				
Black	0.00	5.02	0.00	
Hispanic	0.00	1.64	0.00	
Asian	0.00	5.40	0.00	
Native	0.00	0.49	0.00	
Minority-owned	0.00	12.55	0.00	
Non-minority female	0.00	22.24	0.00	
M/WBE total	0.00	34.79	0.00	

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index	
Petroleum and Coal Products Manufacturing (NAICS 324)				
Black	0.00	4.01	0.00	
Hispanic	0.00	2.10	0.00	
Asian	0.00	4.42	0.00	
Native	0.00	0.00		
Minority-owned	0.00	10.52	0.00	
Non-minority female	0.00	18.26	0.00	
M/WBE total	0.00	28.79	0.00	*
Credit Intermediation and Related Activities (NAICS 522)				
Black	0.00	4.86	0.00	
Hispanic	0.00	7.09	0.00	
Asian	0.00	0.19	0.00	
Native	0.00	0.00	0.00	
Minority-owned	0.00	12.14	0.00	
Non-minority female	0.00	14.56	0.00	
M/WBE total	0.00	26.70	0.00	
Furniture and Home Furnishings Stores (NAICS 442)				
Black	0.00	10.19	0.00	
Hispanic	0.00	1.53	0.00	
Asian	0.00	7.91	0.00	
Native	0.00	2.35	0.00	
Minority-owned	0.00	21.98	0.00	
Non-minority female	0.00	8.18	0.00	
M/WBE total	0.00	30.16	0.00	*
Electronics and Appliance Stores (NAICS 443)				
Black	0.00	10.54	0.00	
Hispanic	0.00	1.04	0.00	
Asian	0.00	9.06	0.00	
Native	0.00	2.35	0.00	
Minority-owned	0.00	22.99	0.00	
Non-minority female	0.00	7.35	0.00	
M/WBE total	0.00	30.34	0.00	
Repair and Maintenance (NAICS 811)				
Black	0.00	5.96	0.00	
Hispanic	0.00	12.94	0.00	
Asian	0.00	5.32	0.00	
Native	0.00	0.03	0.00	
Minority-owned	0.00	24.25	0.00	
Non-minority female	0.00	17.83	0.00	
M/WBE total	0.00	42.07	0.00	**

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Waste Management and Remediation Services (NAICS 562)			
Black	0.00	1.61	0.00
Hispanic	0.00	7.01	0.00
Asian	0.00	8.29	0.00
Native	0.00	0.23	0.00
Minority-owned	0.00	17.15	0.00
Non-minority female	0.00	11.95	0.00
M/WBE total	0.00	29.10	0.00
Support Activities for Transportation (NAICS 488)			
Black	0.00	2.22	0.00
Hispanic	0.00	7.33	0.00
Asian	0.00	8.22	0.00
Native	0.00	0.37	0.00
Minority-owned	0.00	18.14	0.00
Non-minority female	0.00	12.66	0.00
M/WBE total	0.00	30.80	0.00 **
Wood Product Manufacturing (NAICS 321)			
Black	0.00	4.39	0.00
Hispanic	0.00	2.08	0.00
Asian	0.00	5.64	0.00
Native	0.00	0.04	0.00
Minority-owned	0.00	12.15	0.00
Non-minority female	0.00	18.26	0.00
M/WBE total	0.00	30.41	0.00
Insurance Carriers and Related Activities (NAICS 524)			
Black	0.00	6.62	0.00
Hispanic	0.00	5.42	0.00
Asian	0.00	4.31	0.00
Native	0.00	0.13	0.00
Minority-owned	0.00	16.48	0.00
Non-minority female	0.00	11.33	0.00
M/WBE total	0.00	27.81	0.00
Amusement, Gambling, and Recreation Industries (NAICS 713)			
Black	0.00	3.64	0.00
Hispanic	0.00	5.88	0.00
Asian	0.00	7.19	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	16.71	0.00
Non-minority female	0.00	13.13	0.00
M/WBE total	0.00	29.84	0.00

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Nonmetallic Mineral Product Manufacturing (NAICS 327)			
Black	0.00	3.65	0.00
Hispanic	0.00	2.35	0.00
Asian	0.00	4.09	0.00
Native	0.00	0.12	0.00
Minority-owned	0.00	10.21	0.00
Non-minority female	12.96	18.72	69.22
M/WBE total	12.96	28.92	44.80
Miscellaneous Store Retailers (NAICS 453)			
Black	0.00	9.96	0.00
Hispanic	0.00	1.52	0.00
Asian	0.00	9.80	0.00
Native	0.00	2.22	0.00
Minority-owned	0.00	23.51	0.00
Non-minority female	0.00	11.32	0.00
M/WBE total	0.00	34.83	0.00
Furniture and Related Product Manufacturing (NAICS 337)			
Black	0.00	4.42	0.00
Hispanic	0.00	2.52	0.00
Asian	0.00	6.98	0.00
Native	0.00	0.15	0.00
Minority-owned	0.00	14.07	0.00
Non-minority female	0.00	18.75	0.00
M/WBE total	0.00	32.82	0.00 *
Data Processing, Hosting and Related Services (NAICS 518)			
Black	0.00	4.79	0.00
Hispanic	0.00	6.02	0.00
Asian	0.00	8.16	0.00
Native	0.00	0.19	0.00
Minority-owned	0.00	19.16	0.00
Non-minority female	0.00	18.76	0.00
M/WBE total	0.00	37.92	0.00
Health and Personal Care Stores (NAICS 446)			
Black	0.00	9.91	0.00
Hispanic	0.00	0.74	0.00
Asian	0.00	8.84	0.00
Native	0.00	2.41	0.00
Minority-owned	0.00	21.90	0.00
Non-minority female	0.00	7.14	0.00
M/WBE total	0.00	29.04	0.00

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Social Assistance (NAICS 624)			
Black	0.00	4.79	0.00
Hispanic	0.00	2.29	0.00
Asian	0.00	6.55	0.00
Native	0.00	0.15	0.00
Minority-owned	0.00	13.78	0.00
Non-minority female	0.00	22.33	0.00
M/WBE total	0.00	36.11	0.00
Transit and Ground Passenger Transportation (NAICS 485)			
Black	0.00	1.18	0.00
Hispanic	0.00	7.38	0.00
Asian	0.00	8.20	0.00
Native	0.00	0.12	0.00
Minority-owned	0.00	16.88	0.00
Non-minority female	0.00	10.78	0.00
M/WBE total	0.00	27.66	0.00
Apparel Manufacturing (NAICS 315)			
Black	0.00	4.52	0.00
Hispanic	0.00	2.55	0.00
Asian	0.00	7.88	0.00
Native	0.00	0.02	0.00
Minority-owned	0.00	14.97	0.00
Non-minority female	0.00	23.30	0.00
M/WBE total	0.00	38.27	0.00
Truck Transportation (NAICS 484)			
Black	0.00	5.65	0.00
Hispanic	0.00	9.49	0.00
Asian	0.00	4.16	0.00
Native	0.00	0.21	0.00
Minority-owned	0.00	19.52	0.00
Non-minority female	0.00	7.46	0.00
M/WBE total	0.00	26.98	0.00
Other Information Services (NAICS 519)			
Black	0.00	4.23	0.00
Hispanic	0.00	6.30	0.00
Asian	0.00	5.11	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	15.65	0.00
Non-minority female	0.00	14.85	0.00
M/WBE total	0.00	30.50	0.00

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Textile Mills (NAICS 313)			
Black	0.00	9.66	0.00
Hispanic	0.00	0.76	0.00
Asian	0.00	7.29	0.00
Native	0.00	1.91	0.00
Minority-owned	0.00	19.62	0.00
Non-minority female	1.05	9.57	10.92
M/WBE total	1.05	29.19	3.58
Motion Picture and Sound Recording Industries (NAICS 512)			
Black	0.00	6.66	0.00
Hispanic	0.00	12.43	0.00
Asian	0.00	5.16	0.00
Native	0.00	0.02	0.00
Minority-owned	0.00	24.28	0.00
Non-minority female	0.00	19.38	0.00
M/WBE total	0.00	43.65	0.00
Plastics and Rubber Products Manufacturing (NAICS 326)			
Black	0.00	4.67	0.00
Hispanic	0.00	3.16	0.00
Asian	0.00	5.03	0.00
Native	0.00	0.11	0.00
Minority-owned	0.00	12.97	0.00
Non-minority female	0.00	19.92	0.00
M/WBE total	0.00	32.89	0.00
Funds, Trusts, and Other Financial Vehicles (NAICS 525)			
Black	0.00	4.92	0.00
Hispanic	0.00	7.21	0.00
Asian	0.00	0.40	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	12.54	0.00
Non-minority female	0.00	14.79	0.00
M/WBE total	0.00	27.33	0.00
Sporting Goods, Hobby, Book, and Music Stores (NAICS 451)			
Black	0.00	9.47	0.00
Hispanic	0.00	2.30	0.00
Asian	0.00	7.94	0.00
Native	0.00	2.19	0.00
Minority-owned	0.00	21.90	0.00
Non-minority female	1.89	9.21	20.54
M/WBE total	1.89	31.11	6.08

M/WBE Utilization and Disparity in the State's Markets

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Personal and Laundry Services (NAICS 812)			
Black	0.00	5.50	0.00
Hispanic	0.00	13.48	0.00
Asian	0.00	5.06	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	24.05	0.00
Non-minority female	0.00	16.68	0.00
M/WBE total	0.00	40.72	0.00
Nonstore Retailers (NAICS 454)			
Black	0.00	10.49	0.00
Hispanic	0.00	0.77	0.00
Asian	0.00	7.87	0.00
Native	0.00	2.40	0.00
Minority-owned	0.00	21.55	0.00
Non-minority female	0.00	7.75	0.00
M/WBE total	0.00	29.30	0.00
Building Material and Garden Equipment and Supplies Dealers (NAICS 444)			
Black	0.00	9.98	0.00
Hispanic	0.00	1.20	0.00
Asian	0.00	7.87	0.00
Native	0.00	2.40	0.00
Minority-owned	0.00	21.45	0.00
Non-minority female	0.00	8.14	0.00
M/WBE total	0.00	29.58	0.00
Securities, Commodity Contracts, & Other Financial Investments and Related Activities (NAICS 523)			
Black	0.00	4.70	0.00
Hispanic	0.00	7.14	0.00
Asian	0.00	0.06	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	11.91	0.00
Non-minority female	0.00	15.49	0.00
M/WBE total	0.00	27.40	0.00
Leather and Allied Product Manufacturing (NAICS 316)			
Black	0.00	6.71	0.00
Hispanic	0.00	1.99	0.00
Asian	0.00	4.28	0.00
Native	0.00	6.90	0.00
Minority-owned	0.00	19.89	0.00
Non-minority female	0.00	23.60	0.00
M/WBE total	0.00	43.49	0.00

Procurement Category / MWBE Type	Utilization	Availability	Disparity Index
Textile Product Mills (NAICS 314)			
Black	0.00	4.03	0.00
Hispanic	0.00	2.79	0.00
Asian	0.00	7.99	0.00
Native	0.00	0.01	0.00
Minority-owned	0.00	14.81	0.00
Non-minority female	0.00	21.94	0.00
M/WBE total	0.00	36.75	0.00
Food Services and Drinking Places (NAICS 722)			
Black	0.00	5.49	0.00
Hispanic	0.00	5.87	0.00
Asian	0.00	6.63	0.00
Native	0.00	0.58	0.00
Minority-owned	0.00	18.58	0.00
Non-minority female	0.00	15.30	0.00
M/WBE total	0.00	33.89	0.00
Couriers and Messengers (NAICS 492)			
Black	0.00	0.25	0.00
Hispanic	0.00	9.36	0.00
Asian	0.00	8.48	0.00
Native	0.00	0.44	0.00
Minority-owned	0.00	18.53	0.00
Non-minority female	0.00	10.54	0.00
M/WBE total	0.00	29.07	0.00
Real Estate (NAICS 531)			
Black	0.00	5.05	0.00
Hispanic	0.00	7.03	0.00
Asian	0.00	0.73	0.00
Native	0.00	0.00	0.00
Minority-owned	0.00	12.81	0.00
Non-minority female	0.00	16.64	0.00
M/WBE total	0.00	29.45	0.00
Warehousing and Storage (NAICS 493)			
Black	0.00	0.38	0.00
Hispanic	0.00	6.47	0.00
Asian	0.00	9.63	0.00
Native	0.00	0.18	0.00
Minority-owned	0.00	16.66	0.00
Non-minority female	0.00	10.89	0.00
M/WBE total	0.00	27.55	0.00

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets**Table 7.15. Disparity Results for Department of Civil Service, Overall and By Procurement Category, 2004-2008**

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
White female			
M/WBE total			
CRS			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
Non-minority female			
M/WBE total			
Services			
Black	0.00	3.50	0.00
Hispanic	0.00	4.19	0.00
Asian	0.04	11.56	0.37
Native	0.00	0.35	0.00
Minority-owned	0.04	19.60	0.22
Non-minority female	0.49	17.44	2.80
M/WBE total	0.53	37.04	1.43
Commodities			
Black	0.00	3.66	0.00
Hispanic	0.00	4.64	0.00
Asian	0.00	7.45	0.00
Native	0.00	0.37	0.00
Minority-owned	0.00	16.12	0.00
Non-minority female	0.00	10.94	0.00
M/WBE total	0.00	27.05	0.00
All Procurement			
Black	0.00	3.71	0.00
Hispanic	0.00	5.41	0.00
Asian	0.04	7.08	0.60
Native	0.00	0.33	0.00
Minority-owned	0.04	16.53	0.26
Non-minority female	0.49	12.39	3.94
M/WBE total	0.53	28.92	1.83

Source and Notes: See Table 7.10.

Note: The Department of Civil Service is responsible for procuring contracts under the NYS Health Insurance Program (NYSHIP). NYSHIP-related contracts reflected in Table 7.15 totaled approximately \$9.77B. Non-health insurance related contracts reflected in Table 7.15 totaled \$26.7M, or 0.27 percent of the total procurement dollars counted for the Department of Civil Service.

M/WBE Utilization and Disparity in the State's Markets

Table 7.16. Disparity Results for Department of Correctional Services, Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
White female			
M/WBE total			
CRS			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
Non-minority female			
M/WBE total			
Services			
Black	0.00	3.50	0.00
Hispanic	0.00	4.19	0.00
Asian	0.00	11.56	0.00
Native	0.00	0.35	0.00
Minority-owned	0.00	19.60	0.00
Non-minority female	0.84	17.44	4.83
M/WBE total	0.84	37.04	2.27
Commodities			
Black	0.00	3.66	0.00
Hispanic	0.00	4.64	0.00
Asian	0.00	7.45	0.00
Native	0.00	0.37	0.00
Minority-owned	0.00	16.12	0.00
Non-minority female	0.00	10.94	0.00
M/WBE total	0.00	27.05	0.00
All Procurement			
Black	0.00	3.71	0.00
Hispanic	0.00	5.41	0.00
Asian	0.00	7.08	0.00
Native	0.00	0.33	0.00
Minority-owned	0.00	16.53	0.00
Non-minority female	0.69	12.39	5.60
M/WBE total	0.69	28.92	2.40

Source: Calculations from NERA Master Contract/Subcontract Database and NERA Baseline Business Universe.
Notes: (1) “*” indicates an adverse disparity that is statistically significant at the 10% level or better (90% confidence). “***” indicates the disparity is significant at a 5% level or better (95% confidence). “****” indicates significance at a 1% level or better (99% confidence). An empty cell in the Disparity Ratio column indicates that no adverse disparity was observed for that category.

M/WBE Utilization and Disparity in the State's Markets**Table 7.17. Disparity Results for Department of Environmental Conservation, Overall and By Procurement Category, 2004-2008**

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black	0.89	4.00	22.14
Hispanic	1.17	6.94	16.89
Asian	0.87	3.18	27.24
Native	4.54	0.21	
Minority-owned	7.47	14.34	52.07
White female	6.17	8.41	73.36
M/WBE total	13.63	22.75	59.94
CRS			
Black	0.00	3.19	0.00
Hispanic	0.00	4.66	0.00
Asian	0.00	4.46	0.00
Native	0.00	0.90	0.00
Minority-owned	0.00	13.21	0.00
Non-minority female	2.37	11.32	20.93
M/WBE total	2.37	24.53	9.66
Services			
Black	0.01	3.50	0.18
Hispanic	0.08	4.19	1.92
Asian	0.42	11.56	3.66
Native	0.00	0.35	0.00
Minority-owned	0.51	19.60	2.60 *
Non-minority female	4.30	17.44	24.65
M/WBE total	4.81	37.04	12.98 **
Commodities			
Black	0.00	3.66	0.00
Hispanic	0.00	4.64	0.00
Asian	0.00	7.45	0.00
Native	0.00	0.37	0.00
Minority-owned	0.00	16.12	0.00
Non-minority female	0.00	10.94	0.00
M/WBE total	0.00	27.05	0.00
All Procurement			
Black	0.67	3.71	17.93
Hispanic	0.89	5.41	16.53
Asian	0.73	7.08	10.37
Native	3.40	0.33	
Minority-owned	5.69	16.53	34.44 *
Non-minority female	5.49	12.39	44.33
M/WBE total	11.19	28.92	38.68 **

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets

Table 7.18. Disparity Results for Office of General Services, Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black	1.31	4.00	32.71 *
Hispanic	5.05	6.94	72.76
Asian	1.82	3.18	57.26
Native	0.25	0.21	
Minority-owned	8.43	14.34	58.80 **
White female	5.54	8.41	65.94
M/WBE total	13.97	22.75	61.44 **
CRS			
Black	1.05	3.19	32.91
Hispanic	3.96	4.66	84.90
Asian	3.47	4.46	77.76
Native	0.00	0.90	0.00
Minority-owned	8.48	13.21	64.14
Non-minority female	8.45	11.32	74.61
M/WBE total	16.92	24.53	68.97
Services			
Black	1.66	3.50	47.38
Hispanic	0.01	4.19	0.35
Asian	0.00	11.56	0.00
Native	0.00	0.35	0.00
Minority-owned	1.67	19.60	8.54
Non-minority female	3.69	17.44	21.16
M/WBE total	5.36	37.04	14.48
Commodities			
Black	0.00	3.66	0.00
Hispanic	0.00	4.64	0.00
Asian	0.00	7.45	0.00 *
Native	0.00	0.37	0.00
Minority-owned	0.00	16.12	0.00 **
Non-minority female	0.70	10.94	6.44 **
M/WBE total	0.70	27.05	2.61 **
All Procurement			
Black	0.28	3.71	7.42
Hispanic	0.58	5.41	10.70
Asian	0.24	7.08	3.40 **
Native	0.03	0.33	7.61
Minority-owned	1.12	16.53	6.78 **
Non-minority female	1.55	12.39	12.48 **
M/WBE total	2.67	28.92	9.22 **

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets

Table 7.19. Disparity Results for Department of Health, Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
White female			
M/WBE total			
CRS			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
Non-minority female			
M/WBE total			
Services			
Black	0.01	3.50	0.22
Hispanic	0.02	4.19	0.48
Asian	0.01	11.56	0.07
Native	0.00	0.35	0.00
Minority-owned	0.04	19.60	0.18
Non-minority female	10.28	17.44	58.93
M/WBE total	10.31	37.04	27.84
Commodities			
Black	0.00	3.66	0.00
Hispanic	0.00	4.64	0.00
Asian	0.00	7.45	0.00
Native	0.00	0.37	0.00
Minority-owned	0.00	16.12	0.00
Non-minority female	0.00	10.94	0.00
M/WBE total	0.00	27.05	0.00
All Procurement			
Black	0.01	3.71	0.21
Hispanic	0.02	5.41	0.36
Asian	0.01	7.08	0.11
Native	0.00	0.33	0.00
Minority-owned	0.04	16.53	0.21
Non-minority female	10.03	12.39	80.95
M/WBE total	10.07	28.92	34.81

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets

Table 7.20. Disparity Results for Division of the Lottery, Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
White female			
M/WBE total			
CRS			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
Non-minority female			
M/WBE total			
Services			
Black	0.00	3.50	0.00
Hispanic	0.32	4.19	7.66
Asian	0.01	11.56	0.08
Native	0.00	0.35	0.00
Minority-owned	0.33	19.60	1.69
Non-minority female	0.00	17.44	0.02
M/WBE total	0.33	37.04	0.90
Commodities			
Black	0.00	3.66	0.00
Hispanic	0.00	4.64	0.00
Asian	0.00	7.45	0.00
Native	0.00	0.37	0.00
Minority-owned	0.00	16.12	0.00
Non-minority female	0.00	10.94	0.00
M/WBE total	0.00	27.05	0.00
All Procurement			
Black	0.00	3.71	0.00
Hispanic	0.29	5.41	5.45
Asian	0.01	7.08	0.12
Native	0.00	0.33	0.00
Minority-owned	0.30	16.53	1.83
Non-minority female	0.00	12.39	0.02
M/WBE total	0.31	28.92	1.06

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets**Table 7.21. Disparity Results for New York State Power Authority, Overall and By Procurement Category, 2004-2008**

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black	1.92	4.00	48.01
Hispanic	2.11	6.94	30.41
Asian	8.80	3.18	
Native	0.05	0.21	22.20
Minority-owned	12.88	14.34	89.87
White female	1.57	8.41	18.65
M/WBE total	14.45	22.75	63.54
CRS			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
Non-minority female			
M/WBE total			
Services			
Black	0.59	3.50	16.86
Hispanic	0.05	4.19	1.14
Asian	2.58	11.56	22.34
Native	0.26	0.35	72.97
Minority-owned	3.48	19.60	17.74 **
Non-minority female	2.24	17.44	12.82 **
M/WBE total	5.71	37.04	15.43 **
Commodities			
Black	0.00	3.66	0.00
Hispanic	0.00	4.64	0.00
Asian	0.00	7.45	0.00 *
Native	0.00	0.37	0.00
Minority-owned	0.00	16.12	0.00 **
Non-minority female	2.72	10.94	24.89 *
M/WBE total	2.72	27.05	10.06 **
All Procurement			
Black	0.83	3.71	22.48
Hispanic	0.73	5.41	13.43 **
Asian	3.78	7.08	53.42
Native	0.10	0.33	29.06
Minority-owned	5.44	16.53	32.90 **
Non-minority female	2.18	12.39	17.59 **
M/WBE total	7.62	28.92	26.34 **

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets

Table 7.22. Disparity Results for Department of Taxation and Finance, Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
White female			
M/WBE total			
CRS			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
Non-minority female			
M/WBE total			
Services			
Black	0.02	3.50	0.66
Hispanic	0.00	4.19	0.00
Asian	0.14	11.56	1.21
Native	0.00	0.35	0.00
Minority-owned	0.16	19.60	0.83
Non-minority female	1.18	17.44	6.75
M/WBE total	1.34	37.04	3.62 *
Commodities			
Black	0.00	3.66	0.00
Hispanic	0.00	4.64	0.00
Asian	0.00	7.45	0.00
Native	0.00	0.37	0.00
Minority-owned	0.00	16.12	0.00
Non-minority female	0.00	10.94	0.00
M/WBE total	0.00	27.05	0.00
All Procurement			
Black	0.02	3.71	0.58
Hispanic	0.00	5.41	0.00
Asian	0.13	7.08	1.83
Native	0.00	0.33	0.00
Minority-owned	0.15	16.53	0.92
Non-minority female	1.09	12.39	8.81
M/WBE total	1.24	28.92	4.30 *

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets

Table 7.23. Disparity Results for Office for Technology, Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black	0.00	4.00	0.00
Hispanic	0.00	6.94	0.00
Asian	0.00	3.18	0.00
Native	0.00	0.21	0.00
Minority-owned	0.00	14.34	0.00
White female	0.00	8.41	0.00
M/WBE total	0.00	22.75	0.00
CRS			
Black	0.00	3.19	0.00
Hispanic	0.00	4.66	0.00
Asian	0.00	4.46	0.00
Native	0.00	0.90	0.00
Minority-owned	0.00	13.21	0.00
Non-minority female	0.00	11.32	0.00
M/WBE total	0.00	24.53	0.00
Services			
Black	0.00	3.50	0.00
Hispanic	0.00	4.19	0.00
Asian	3.96	11.56	34.29
Native	0.00	0.35	0.00
Minority-owned	3.96	19.60	20.22
Non-minority female	29.53	17.44	
M/WBE total	33.49	37.04	90.42
Commodities			
Black	0.00	3.66	0.00
Hispanic	0.00	4.64	0.00
Asian	0.00	7.45	0.00
Native	0.00	0.37	0.00
Minority-owned	0.00	16.12	0.00
Non-minority female	0.00	10.94	0.00
M/WBE total	0.00	27.05	0.00
All Procurement			
Black	0.00	3.71	0.00
Hispanic	0.00	5.41	0.00
Asian	0.60	7.08	8.44
Native	0.00	0.33	0.00
Minority-owned	0.60	16.53	3.62
Non-minority female	4.45	12.39	35.92
M/WBE total	5.05	28.92	17.45

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets

Table 7.24. Disparity Results for New York State Thruway Authority, Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black	0.73	4.00	18.29
Hispanic	3.37	6.94	48.60
Asian	3.27	3.18	
Native	1.09	0.21	
Minority-owned	8.47	14.34	59.08
White female	3.76	8.41	44.77
M/WBE total	12.23	22.75	53.79
CRS			
Black	3.12	3.19	97.74
Hispanic	1.86	4.66	39.90
Asian	10.42	4.46	
Native	0.00	0.90	0.00
Minority-owned	15.40	13.21	
Non-minority female	4.47	11.32	39.46
M/WBE total	19.87	24.53	80.98
Services			
Black	0.00	3.50	0.00
Hispanic	0.00	4.19	0.00
Asian	0.00	11.56	0.00
Native	0.00	0.35	0.00
Minority-owned	0.00	19.60	0.00
Non-minority female	0.58	17.44	3.30
M/WBE total	0.58	37.04	1.55 *
Commodities			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
Non-minority female			
M/WBE total			
All Procurement	0.95	3.71	25.49
Black	3.17	5.41	58.56
Hispanic	3.89	7.08	54.96
Asian	0.97	0.33	
Native	8.97	16.53	54.28
Minority-owned	3.77	12.39	30.44 *
Non-minority female	12.74	28.92	44.07 **
M/WBE total	0.95	3.71	25.49

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets**Table 7.25. Disparity Results for Department of Transportation, Overall and By Procurement Category, 2004-2008**

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio	
Construction				
Black	0.80	4.00	20.10	**
Hispanic	2.37	6.94	34.16	**
Asian	0.47	3.18	14.92	*
Native	1.27	0.21		
Minority-owned	4.92	14.34	34.33	**
White female	4.74	8.41	56.38	
M/WBE total	9.66	22.75	42.48	**
CRS				
Black	1.16	3.19	36.30	
Hispanic	7.01	4.66		
Asian	16.43	4.46		
Native	0.39	0.90	43.20	
Minority-owned	24.99	13.21		
Non-minority female	1.78	11.32	15.75	*
M/WBE total	26.77	24.53		
Services				
Black	0.16	3.50	4.45	
Hispanic	0.00	4.19	0.00	
Asian	10.48	11.56	90.63	
Native	0.00	0.35	0.00	
Minority-owned	10.63	19.60	54.24	
Non-minority female	2.81	17.44	16.12	
M/WBE total	13.44	37.04	36.30	
Commodities				
Black	0.00	3.66	0.00	
Hispanic	0.00	4.64	0.00	
Asian	0.00	7.45	0.00	
Native	0.00	0.37	0.00	
Minority-owned	0.00	16.12	0.00	
Non-minority female	0.00	10.94	0.00	
M/WBE total	0.00	27.05	0.00	
All Procurement				
Black	0.79	3.71	21.20	**
Hispanic	2.68	5.41	49.57	
Asian	2.35	7.08	33.22	**
Native	1.09	0.33		
Minority-owned	6.91	16.53	41.78	**
Non-minority female	4.16	12.39	33.55	**
M/WBE total	11.06	28.92	38.26	**

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets

Table 7.26. Disparity Results for Metropolitan Transportation Authority (All), Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black	5.24	4.00	
Hispanic	2.38	6.94	34.30
Asian	5.27	3.18	
Native	0.32	0.21	
Minority-owned	13.22	14.34	92.23
White female	2.14	8.41	25.40 *
M/WBE total	15.36	22.75	67.52
CRS			
Black	0.32	3.19	10.11
Hispanic	1.56	4.66	33.53
Asian	9.81	4.46	
Native	0.00	0.90	0.00
Minority-owned	11.70	13.21	88.54
Non-minority female	4.03	11.32	35.64
M/WBE total	15.73	24.53	64.13
Services			
Black	1.93	3.50	55.16
Hispanic	2.39	4.19	57.05
Asian	4.10	11.56	35.43
Native	0.00	0.35	0.00
Minority-owned	8.42	19.60	42.94
Non-minority female	7.33	17.44	42.02
M/WBE total	15.75	37.04	42.51
Commodities			
Black	0.12	3.66	3.31
Hispanic	0.09	4.64	2.00
Asian	0.11	7.45	1.54
Native	0.00	0.37	0.00
Minority-owned	0.33	16.12	2.04
Non-minority female	0.61	10.94	5.61
M/WBE total	0.94	27.05	3.48 **
All Procurement			
Black	2.16	3.71	58.31
Hispanic	1.19	5.41	22.01
Asian	2.89	7.08	40.76
Native	0.12	0.33	36.06
Minority-owned	6.36	16.53	38.47 *
Non-minority female	1.85	12.39	14.93 **
M/WBE total	8.21	28.92	28.38 **

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets**Table 7.27. Disparity Results for Office of Temporary and Disability Assistance, Overall and By Procurement Category, 2004-2008**

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black	1.31	4.00	32.71 *
Hispanic	5.05	6.94	72.76
Asian	1.82	3.18	57.26
Native	0.25	0.21	
Minority-owned	8.43	14.34	58.80 **
White female	5.54	8.41	65.94
M/WBE total	13.97	22.75	61.44 **
CRS			
Black	1.05	3.19	32.91
Hispanic	3.96	4.66	84.90
Asian	3.47	4.46	77.76
Native	0.00	0.90	0.00
Minority-owned	8.48	13.21	64.14
Non-minority female	8.45	11.32	74.61
M/WBE total	16.92	24.53	68.97
Services			
Black	1.66	3.50	47.38
Hispanic	0.01	4.19	0.35
Asian	0.00	11.56	0.00
Native	0.00	0.35	0.00
Minority-owned	1.67	19.60	8.54
Non-minority female	3.69	17.44	21.16
M/WBE total	5.36	37.04	14.48
Commodities			
Black	0.00	3.66	0.00
Hispanic	0.00	4.64	0.00
Asian	0.00	7.45	0.00 *
Native	0.00	0.37	0.00
Minority-owned	0.00	16.12	0.00 **
Non-minority female	0.70	10.94	6.44 **
M/WBE total	0.70	27.05	2.61 **
All Procurement			
Black	0.28	3.71	7.42
Hispanic	0.58	5.41	10.70
Asian	0.24	7.08	3.40 **
Native	0.03	0.33	7.61
Minority-owned	1.12	16.53	6.78 **
Non-minority female	1.55	12.39	12.48 **
M/WBE total	2.67	28.92	9.22 **

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets

Table 7.28. Disparity Results for State University Construction Fund, Overall and By Procurement Category, 2004-2008

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio
Construction			
Black	2.01	4.00	50.25
Hispanic	2.67	6.94	38.41 **
Asian	0.47	3.18	14.76 **
Native	1.20	0.21	
Minority-owned	6.34	14.34	44.26 **
White female	4.02	8.41	47.75 **
M/WBE total	10.36	22.75	45.55 **
CRS			
Black	0.63	3.19	19.67
Hispanic	1.00	4.66	21.54
Asian	3.88	4.46	86.95
Native	0.18	0.90	20.37
Minority-owned	5.69	13.21	43.08
Non-minority female	9.23	11.32	81.57
M/WBE total	14.92	24.53	60.84
Services			
Black	0.00	3.50	0.00
Hispanic	0.00	4.19	0.00
Asian	0.00	11.56	0.00
Native	0.00	0.35	0.00
Minority-owned	0.00	19.60	0.00
Non-minority female	0.00	17.44	0.00
M/WBE total	0.00	37.04	0.00
Commodities			
Black			
Hispanic			
Asian			
Native			
Minority-owned			
Non-minority female			
M/WBE total			
All Procurement			
Black	1.89	3.71	50.83
Hispanic	2.51	5.41	46.46 **
Asian	0.74	7.08	10.43 **
Native	1.11	0.33	
Minority-owned	6.24	16.53	37.77 **
Non-minority female	4.57	12.39	36.88 **
M/WBE total	10.81	28.92	37.39 **

Source and Notes: See Table 7.10.

M/WBE Utilization and Disparity in the State's Markets**Table 7.29. Disparity Results for State University of New York (All), Overall and By Procurement Category, 2004-2008**

Procurement Category / M/WBE Type	Utilization	Availability	Disparity Ratio	
Construction				
Black	2.14	4.00	53.40	
Hispanic	1.74	6.94	25.05	**
Asian	0.48	3.18	15.07	
Native	0.13	0.21	59.73	
Minority-owned	4.48	14.34	31.27	**
White female	5.64	8.41	67.09	
M/WBE total	10.12	22.75	44.51	**
CRS				
Black	1.45	3.19	45.53	
Hispanic	4.80	4.66		
Asian	0.64	4.46	14.28	
Native	0.00	0.90	0.00	
Minority-owned	6.89	13.21	52.12	
Non-minority female	4.48	11.32	39.59	
M/WBE total	11.37	24.53	46.34	
Services				
Black	0.00	3.50	0.00	
Hispanic	0.36	4.19	8.57	
Asian	0.79	11.56	6.85	**
Native	0.00	0.35	0.00	
Minority-owned	1.15	19.60	5.87	**
Non-minority female	1.30	17.44	7.44	**
M/WBE total	2.45	37.04	6.61	**
Commodities				
Black	0.00	3.66	0.00	
Hispanic	0.00	4.64	0.00	
Asian	0.00	7.45	0.00	
Native	0.00	0.37	0.00	
Minority-owned	0.00	16.12	0.00	**
Non-minority female	0.00	10.94	0.00	**
M/WBE total	0.00	27.05	0.00	**
All Procurement				
Black	0.61	3.71	16.48	*
Hispanic	0.85	5.41	15.79	**
Asian	0.49	7.08	6.99	**
Native	0.03	0.33	9.48	
Minority-owned	1.99	16.53	12.05	**
Non-minority female	2.21	12.39	17.81	**
M/WBE total	4.20	28.92	14.52	**

Source and Notes: See Table 7.10.

Table 7.30. Current Availability and Expected Availability

Procurement Category	M/WBE Type	Current Availability	Expected Availability
All	African-American:	3.71	7.03
	Hispanic	5.41	7.41
	Asian	7.08	8.02
	Native American	0.33	0.43
	Minority total	16.53	25.08
	Non-minority female	12.39	17.21
	M/WBE total	28.92	42.16
Construction	African-American:	4.00	6.21
	Hispanic	6.94	10.64
	Asian	3.18	4.31
	Native American	0.21	0.30
	Minority total	14.34	21.76
	Non-minority female	8.41	14.88
	M/WBE total	22.74	35.98
CRS	African-American:	3.19	4.95
	Hispanic	4.66	7.15
	Asian	4.46	6.05
	Native American	0.90	1.29
	Minority total	13.21	20.05
	Non-minority female	11.32	20.04
	M/WBE total	24.53	38.81
Services	African-American:	3.50	7.35
	Hispanic	4.19	5.88
	Asian	11.56	13.47
	Native American	0.35	0.48
	Minority total	19.60	27.76
	Non-minority female	17.44	24.36
	M/WBE total	37.04	52.39
Commodities	African-American:	3.66	7.69
	Hispanic	4.64	6.52
	Asian	7.45	8.68
	Native American	0.37	0.51
	Minority total	16.11	22.82
	Non-minority female	10.93	15.27
	M/WBE total	27.05	38.26

Source: See Tables 4.17 and 5.21.

Note: A dash indicates the corresponding disparity ratio from Table 5.21 was 0 and expected availability could therefore not be calculated (i.e. cannot divide by zero). "n/a" indicates that expected MBE availability could not be calculated since expected Asian availability and expected Native American availability could not be calculated.

VIII. Anecdotal Evidence of Disparities in the State's Marketplace

We have presented a variety of economic and statistical findings above that are consistent with and indicative of the presence of business discrimination against minorities and women in the geographic and product markets that are relevant to the State's contracting and procurement activities. Chapters V and VI in particular have documented large and statistically significant adverse disparities in the State's relevant markets impacting minority and female entrepreneurs. Commercial loan denial rates are higher, the cost of credit is higher, business formation rates are lower, and business owner earnings are lower—even when comparisons are restricted to similarly situated businesses and business owners.

As a further check on these findings, we investigated anecdotal evidence of disparities in the State's marketplace. First, we conducted a large scale survey of business establishments in these markets—both M/WBE and non-M/WBE—and asked owners directly about their experiences, if any, with contemporary business-related acts of discrimination. We find that M/WBEs in the State's markets report suffering business-related discrimination in large numbers and with statistically significantly greater frequency than non-M/WBEs. These differences remain statistically significant when firm size and owner characteristics are held constant. We also find that M/WBEs in these markets are more likely than similarly situated non-M/WBEs to report that specific aspects of the regular business environment make it harder for them to conduct their businesses, less likely than similarly situated non-M/WBEs to report that specific aspects of the regular business environment make it easier for them to conduct their businesses, and that these differences are statistically significant in many cases. Additionally, we find that M/WBE firms that have been hired in the past by non-M/WBE prime contractors to work on public sector contracts with M/WBE goals are rarely hired—or even solicited—by these prime contractors to work on projects without M/WBE goals. The relative lack of M/WBE hiring and, even more tellingly, the relative lack of solicitation of M/WBEs in the absence of affirmative efforts by NYS and other public entities in the New York State market area shows that business discrimination continues to fetter M/WBE business opportunities in the State's relevant markets. We conclude that the statistical evidence presented in this report is consistent with these anecdotal accounts of contemporary business discrimination.

Next, we conducted in-depth personal interviews with minority, women and majority business owners about their experiences in seeking and performing contracts in the State's marketplace. These focus groups confirmed the results of the statistical evidence and the mail surveys: minorities and women encounter significant barriers to the success of their firms in seeking public and private sector work, and these barriers are often the result of discrimination.

The remainder of this Chapter is organized as follows. We first discuss the mail survey results in Section A. In Section A.1, we discuss the survey questionnaire, sample frame, and response rate. Section A.2 presents evidence on willingness of firms to do business with the public sector. Section A.3 presents the key findings from the M/WBE and non-M/WBE respondents concerning disparate treatment. Section A.4 documents disparities in firm experience and size among M/WBE and non-M/WBE respondents. Section A.5 presents the key findings concerning the impact of the regular business environment on M/WBEs' ability to conduct their businesses. Section A.6 presents key findings to our questions concerning whether prime contractors solicit or hire M/WBEs for work on public or private contracts without M/WBE goals. Section A.7 then

examines whether M/WBEs and non-M/WBEs that responded to the mail surveys are representative of all M/WBEs and non-M/WBEs in the relevant markets. To do so, we surveyed a random sample of M/WBEs and non-M/WBEs that did not respond to our mail survey, and then compared their responses to key questions with those of our survey respondents.

Finally, Section B describes the results of the business experience group interviews. Responses are grouped under the headings of the most common cited barriers and issues facing M/WBEs and non-M/WBEs.

A. Business Experience Surveys

1. Survey Questionnaire, Sample, and Responses

The survey questionnaires asked whether and with what frequency firms had experienced discrimination in a wide variety of likely business dealings in the previous five years. The survey also inquired about the influence of specific aspects of the everyday business environment, such as bonding and insurance requirements, on each firm's ability to do business in the State's relevant markets. We also asked about the relative frequency with which firms that have been used as subcontractors, subconsultants, or suppliers by prime contractors on contracts *with* M/WBE goals have been hired to work, or even solicited to bid, on similar contracts *without* M/WBE goals. Finally, we posed questions about the characteristics of the firm, including firm age, owner's education, employment size, and revenue size to facilitate comparisons of similarly situated firms.

The mail survey sample was stratified by industry and drawn directly from the Master M/WBE Directory and the Baseline Business Universe compiled for this study. Firms were sampled randomly within strata. M/WBE firms were oversampled to facilitate statistical comparisons with non-M/WBEs.²⁵³ Of 16,994 businesses that received the questionnaire,²⁵⁴ 1,148 (7 percent) provided usable responses.²⁵⁵ The distribution of total responses according to the race and sex of the business owner, by major procurement category, appears in Table 8.1.

2. Willingness of Firms to Contract with the Public Sector

The probative value of anecdotal evidence of discrimination increases when it comes from active businesses in the relevant geographic and procurement markets. The value of such evidence increases further when it comes from firms that have actually worked or attempted to work for the public sector within those markets. Such is the present case.

²⁵³ See Chapter III for a discussion of how the product and geographic markets were defined. See Chapter IV for discussion of how the Master M/WBE Directory and the Baseline Business Universe were assembled.

²⁵⁴ These figures exclude surveys that were returned undelivered or were otherwise undeliverable.

²⁵⁵ The total number of valid responses to any particular survey question, however, was sometimes lower than this due to item non-response.

As shown below in Table 8.2, there is a strong linkage between the firms responding to our mail survey and the public sector of the New York state economy. All respondents operate establishments in the relevant geographic and product markets. Moreover, significant numbers of survey respondents have worked or attempted to do work for NYS or other public entities in the market area in the last five years. This is observed for virtually all types of M/WBEs and non-M/WBEs in all procurement categories. Overall, more than half of non-M/WBEs and over three-fifths of M/WBEs have worked or attempted to work for NYS or some other public entity in the market area in the previous five years. This phenomenon is especially apparent for M/WBEs and non-M/WBEs in CRS, Commodities, and Construction.

3. Experiences of Disparate Treatment in Business Dealings

The survey included questions about instances of disparate treatment based on race and/or sex experienced in various business dealings during the past five years. As shown in the last row of Table 8.3, 44 percent of M/WBE firms said they had experienced at least one instance of disparate treatment in one or more areas of business dealings identified on the survey. Reports of disparate treatment were substantially and statistically significantly higher for minorities and non-minority women than for non-minority males, casting doubt on claims of widespread “reverse discrimination.” Reports were highest among African-Americans and Native Americans, with overall rates of 70 percent or more. Similar patterns were observed when the results were disaggregated by procurement category.

The balance of Table 8.3 shows results for each of 14 distinct types of disparate treatment inquired about in the survey. In all categories, the difference in reported amounts of disparate treatment between M/WBEs and non-M/WBEs is large. In applying for commercial loans, for example, M/WBEs reported being discriminated almost four times more frequently than non-minority males. In obtaining price quotes from suppliers it was almost four times more frequent as well. For African Americans in these two categories, the incidence of reported disparate treatment was approximately eight times higher.²⁵⁶

Even where differences are smallest, M/WBEs report being discriminated against roughly 1.5 to 2 times more frequently as non-M/WBEs. The figures for M/WBEs are between 2 and 17 times higher than for non-M/WBEs in attempting to obtain work on private sector prime contracts and subcontracts, applying for commercial loans, obtaining price quotes from suppliers, functioning without hindrances at work sites, and having to do inappropriate or extra work not required of non-M/WBEs.

Evidence of the impact of public sector M/WBE programs is seen in that the smallest differences between M/WBEs and non-M/WBEs appear in the categories of working or attempting to work on public sector prime and subcontracts—although even here the figures are still 1.6 and 1.7 times higher, respectively, for M/WBEs than for non-M/WBES.

²⁵⁶ Discrimination in access to commercial credit and capital is the most widely and commonly cited problem facing minority-owned firms. See Chapter VI for an extensive discussion of the theory and analysis of the evidence behind this phenomenon.

Table 8.4 represents the same disparate treatment information as in Table 8.3, but with the frequency percentages replaced by relative rankings. That is, the 14 kinds of disparate treatment are ranked by each group according to the frequency with which disparate treatment was reported, with “1” representing the most frequent and “14” representing the least frequent.

As the table makes clear, there is a high degree of correlation among the rankings—that is, problems that ranked high on one group’s list tended to be high on the other groups’ lists and vice-versa.²⁵⁷ The worst problem overall for M/WBEs was receiving timely payment for work performed. This was followed closely by working or attempting to work on public sector prime contracts, working or attempting to work on public sector subcontracts, and working or attempting to work on private sector prime contracts.

Some courts and other observers have asserted that findings such as those in Table 8.3 tell us nothing about discrimination against M/WBEs since, even though they are current, even though they come directly from the businesses alleging disparate treatment, even though they are restricted to the relevant geographic and product markets, even though they are disaggregated by procurement category, and even though they are disaggregated by race and sex, they still do not compare firms of similar size, qualifications, or experience. We have argued elsewhere against such flawed logic (and economics) since size, qualifications, and experience are *precisely* the factors that are adversely impacted by discrimination (Wainwright and Holt, 2010, 65-67; Wainwright, 2000, 86-87). Nevertheless, if disparities are still observed even when such “capacity” factors are held constant, the case becomes even more compelling. **The results reported below in Table 8.5 show that even when levels of size, qualifications, and experience are held constant across firms, measures of disparate treatment of African American-, Hispanic-, Asian-, Native American-, and non-minority women-owned businesses are still large, adverse, and statistically significant.**

In Table 8.5, we report the results from a series of Probit regressions using the mail survey data on disparate treatment.²⁵⁸ As indicated earlier, the survey questionnaire collected data related to each firm’s size, qualifications, and experience. The reported estimates from these models can be interpreted as changes or differences in the probability of disparate treatment conditional on the control variables. The estimates in the table show large differences in disparate treatment probabilities between M/WBEs and non-M/WBEs. In column (1) of Table 8.5 (in which the regression model contains only M/WBE status and procurement category indicators), the estimated coefficient of 0.221 on the M/WBE indicator indicates that the likelihood of experiencing disparate treatment for M/WBE firms is 22.1 percentage points higher than that for non-M/WBE firms.²⁵⁹ This difference is statistically significant within a 99 percent confidence

²⁵⁷ Kendall’s rank correlation statistic for the African-American, Hispanic, Asian, Native American, and non-minority female rankings in Table 8.4 is 0.791, which is statistically significant within a 99% or better confidence interval. For more on this statistic, see Goldstein (1991).

²⁵⁸ See Chapter V for a description of Probit regression.

²⁵⁹ This estimate largely replicates the raw difference in disparate treatment rates between M/WBE and non-M/WBE firms reported in the last row of Table 8.3. The raw differential observed there ($44.4\% - 23.3\% = 21.2\%$) differs slightly from the 22.1% differential reported here since the regression specification also controls for industry category.

interval or better. Column (2) of Table 8.5 includes additional explanatory variables to hold constant differences in the characteristics of firms that may vary by race or sex, including the owner's education, the age of the firm, and the size of the firm measured by employment and by sales. Even after controlling for these differences, however, M/WBE firms remain 22.3 percentage points more likely than non-M/WBE firms to experience disparate treatment. This difference is also statistically significant within a 99 percent confidence interval. Firm size and other characteristics account for little of the disparate treatment reported by M/WBEs in the New York state market area.

The exercise is repeated in columns (3) and (4). The only difference is that the M/WBE indicator is separated into two components—one for minority-owned firms and one for non-minority-female owned firms. The results in column (3) indicate that minority-owned firms in the State's market area are 27.6 percentage points more likely to experience disparate treatment than non-M/WBE firms. When controls are added in column (4), this difference actually increases to 28.5 percentage points, indicating that disparate treatment is occurring despite superior minority firm qualifications in at least some of the control variables. Non-minority female-owned firms are 17.1 and 17.2 percentage points more likely to experience disparate treatment, respectively, and these differences are statistically significant as well.

The exercise is repeated again in columns (5) and (6) with separate indicators for each type of M/WBE. The results for non-minority females are nearly identical to those in columns (3) and (4). For African-American-owned firms, the differential is 45.8 percentage points in column (5), actually rising to 46.5 percentage points once controls are added. For Hispanic-owned firms, the differentials are 19.5 and 21.6 percentage points, respectively. For Asian-owned firms, the differentials are 20.6 and 21.3 percentage points, respectively. For Native American-owned firms, the differentials are 52.1 and 52.9 percentage points, respectively. All of these differences are statistically significant.

The regression models reported in Table 8.5 used as their dependent variable an indicator of whether or not a survey respondent reported having been treated less favorably in any of the 14 different types of business dealings described in the first column of Table 8.3.²⁶⁰ We re-estimated the regression model reported in Column (2) of Table 8.5 separately using as the dependent variable, in turn, each of the 14 types of business dealings and report those results in Table 8.6. As Table 8.6 shows, African-American-owned firms in particular experience a wide variety of disparate treatment compared to non-M/WBEs. In all 14 categories the differences for African-American-owned firms are both large and statistically significant. For Hispanic-owned firms, this is true in 10 of 14 cases. For Asian-owned firms, this is true in 9 of 14 cases. For Native American-owned firms, this is true in 3 of 14 cases. For non-minority female-owned firms, this is true in 7 of 14 cases. For M/WBES as a group it is true in 12 of the 14 cases.

²⁶⁰ Our disparate treatment question also allowed respondents to indicate the quantity of disparate treatment experienced (never, 1-5 times, 6-20 times, more than 20-times). Although not reported here, we also ran regressions using a dependent variable measuring high frequency of disparate treatment (6 or more times) during the prior five years. Results were more limited due to smaller sample sizes but were qualitatively similar to those obtained in Tables 8.5 and 8.6.

4. Impact of Current Business Environment on Ability to Win Contracts

The survey asked questions about some common features of the business environment to determine which factors were perceived by M/WBEs as serious impediments to obtaining contracts.

As Table 8.7 makes clear, substantial percentages of both M/WBEs and non-M/WBEs report that certain factors, such as “Obtaining working capital” and “Large project sizes,” make it harder or impossible for firms to obtain contracts. Among non-M/WBEs, for example, 34.6 percent reported that obtaining working capital made it harder or impossible for them to win contracts, and 37.2 percent reported that large project sizes made it harder or impossible for them to win contracts. The figures for M/WBEs, however, at 48.3 percent and 58.2 percent, respectively, are much greater than for non-M/WBEs. Indeed, as Table 8.7 shows, M/WBEs reported more difficulty on 8 out of the 9 factors about which they were polled.

To control for firm and owner characteristics, we used a regression technique known as ordered Probit.²⁶¹ Ordered Probit regression is used when the dependent variable is discrete and ordinal (and hence can be ranked). We use ordered Probit to model the ordinal ranking—helps me (1), no effect (2), makes it harder (3), and makes it impossible (4)—of the aspect of procurement under consideration. The firm characteristics used as control variables consist of the age of the firm, the number of employees, the size of revenues, the education level of the primary owner of the firm, and the major industry group. To report results from ordered Probit analysis, we use a “+” to indicate that M/WBEs had more difficulty than non-M/WBEs with similar firm characteristics, and a “–” to indicate that M/WBEs had less difficulty than non-M/WBEs with similar firm characteristics.

Table 8.8 reports the sign and statistical significance from the ordered Probit analysis. We find that when observable firm characteristics are controlled for, all nine of the factors we inquired about prove to be greater difficulties for M/WBEs than for non-M/WBEs (as indicated by the “+” sign). In particular, the disparities for “large project size” are statistically significant with respect to non-M/WBEs.

5. Solicitation and Use of M/WBEs on Public and Private Projects Without Affirmative Action Goals

Our second to last survey question asked, “How often do prime contractors who use your firm as a subcontractor on public-sector projects with requirements for minority, women and/or disadvantaged businesses also hire your firm on projects (public or private) *without* such goals or requirements?” As Table 8.9 shows, more than 74 percent of African-American-owned firms, 67 percent of Hispanic-owned firms, 73 percent of Asian-owned firms, 100 percent of Native American-owned firms, and 63 percent of non-minority female-owned firms responded that this seldom or never occurs. Similar results were observed in each major procurement category as well.

²⁶¹ For a textbook discussion of ordered Probit, see, for example, Greene (1997).

At least one court has held that the failure of prime contractors to even *solicit* qualified minority- and women-owned firms is a “market failure” that serves to establish a government’s compelling interest in remedying that failure.²⁶² Among the evidence relied upon for this holding was a NERA survey similar to the current one in which approximately 50 percent of the respondents reported that they were seldom or never solicited for non-goals work.²⁶³

Our final survey question therefore asked “How often do prime contractors who use your firm as a subcontractor on public-sector projects with requirements for minority, women and/or disadvantaged businesses *solicit* your firm on projects (public or private) without such goals or requirements?” Responses to this question are tabulated in Table 8.10, which shows the same pattern as in Table 8.9. In Table 8.10, almost 74 percent of African-American-owned firms, more than 61 percent of Hispanic-owned firms, 67 percent of Asian-owned firms, 50 percent of Native American-owned firms, and 66 percent of non-minority female-owned firms responded that this seldom or never occurs. Similar results were also observed in each major procurement category .

B. Business Owner Interviews

To explore additional anecdotal evidence of possible discrimination against minorities and women in New York State’s marketplace, we conducted 35 group interviews. We met with 232 business owners from a broad cross section of the industries from which the State purchases services and goods. Firms ranged in size from large national businesses to decades-old family-owned firms to new start-ups. Owners’ backgrounds included individuals with decades of experience in their fields and entrepreneurs beginning their careers. We sought to explore their experiences in seeking and performing public and private sector prime contracts and subcontracts, with emphasis on New York State contracts.

This effort gathered individual perspectives to augment the statistical information from the business experience and credit access surveys. In general, interviewees’ individual experiences mirrored the responses to the business experience surveys. We also elicited recommendations for improvements to New York’s current M/WBE policies and procedures, reported below in Chapter IX.

The following are summaries of the issues discussed. Quotations are indented, and are representative of the views expressed over the many sessions by many participants.

1. Stereotypes, Negative Perceptions of Competence and Higher Performance Standards

Many minority and women owners reported that while progress has been made in integrating minorities and women into public and private sector contracting activities in New York through affirmative action contracting programs, many barriers remain. Perhaps the most subtle and difficult to address is that of perceptions and stereotypes. These stereotypes about minorities’ and

²⁶² *Builders Association of Greater Chicago v. Authority of Chicago*, 298 F.Supp.2d 725, 737 (N.D. Ill. 2003).

²⁶³ *Id.*

women's of lack of competence infect all aspects of their attempts to obtain contracts and to be treated equally in performing contract work. Minorities and women repeatedly discussed their struggles with negative perceptions and attitudes of their capabilities in the business world.

They think that women and minorities are less competent. They don't want to take a chance on you because they have deadlines and budgets and unless there is something that makes them somehow want to use you on that job so that they can see, "Oh wow, he really is a good contractor." Then they'll use you again. Until you get that foot in the door is what we're all talking about it doesn't happen. I've been fortunate that I've gotten my foot in the door with several contractors, and they know who we are and then started using us, but that's over a long period of time also.²⁶⁴

My [Black] father was in the construction business for 35 years in [city], and I can speak because I grew up in construction. And, I saw everyday that he was out on the job site, slashed tired, sugar in the fuel tanks, hydraulic lines slit. It was bad. I don't see that today, but it was bad back then, and that's why I want to get into business and make a name for myself to change some of this.

I look at WBE companies and Hispanic companies and African-American companies, [as an Hispanic male] I can truly say that the African-American company really is the individual that gets beat up the most, the hardest, the most, and without mercy.

[P]ainters don't want to talk to a female. what could I possibly know about [painting]?

If I show up as myself owning the company, especially in the construction business and you may have seen this yourself, is they would prefer not to do business with me. They would prefer to do business with my husband.

[Differing performance standards] that is why I started my own firm. Because I love architecture and I want to do, you know, what I enjoy and not have to deal with that foolishness.

I actually try not to say that I'm WBE, and I know that sounds odd, but sometimes I think that it is viewed negatively.

It seems like when we started out we got a lot of that in the beginning where everybody would come up just to see what they could get you to do extra or more on top of what you're already contracted to do. And as time goes on you find out that either, A, you don't need to do that or, B, that that's above and beyond the call of duty.... The longer you're around the more they find out that, you know, you're just as good as everybody else is. It's a more of like, I guess a knowing process.... It could be [because you are the new guy on the block or because you are the new Black guy on the block] or sometimes it's both

²⁶⁴ A small number of MBE interviewees reported being able to develop this sort of longer term relationship with non-MBE primes.

Some companies who have, they're family run, you may run into them or they're old hat and especially in construction, and they want their guys that they're used to doing and they have to have you on the job because the state's mandated it, so they're kind of grumpy right from the beginning. If you show them that you can perform and usually they'll use you again and they'll kind of leave you alone. But they will harass you initially.... I've been in it long enough and prior to being eleven years in trucking I was in construction as a laborer so I'm familiar with what is excessive and what isn't and I don't tolerate. And if you show them that and you show them that you can perform, they're going to keep you out there because they know themselves that if it's outside of work, that what is real, they're going to be in trouble. So it's going to be exactly what you're going to accept and what you're going to tolerate, from my experience.

Often, minorities and women felt that race or gender influenced the treatment they received, but the causes were subtle and the expressions opaque.

I think it's hard to specifically say that we have that discrimination maybe because I think the process right now is set up where it can be masked very easily. So, you really don't see it.

It's very difficult for small minority contractors to go out there and make a living when there's this underlying discrimination. It's not out in the open like it used to be, but it still exists. Believe me, it exists. It's there.

We negotiate a contract on a telephone or email sending the document back-and-forth and we'll show up at this company's office, my partner and I are...Black. The next thing we're told, "Go come back and we'll get back to you." By the time we reach our office we've received a message that the contract has either been cancelled or something happened. The requirements then become more stringent. Then, we're standing in the cold. It's out there, but you cannot put your finger on it. You cannot say, "This is it" because they have become very crafty at trying to put a veneer on it. It's better to know that you don't like me because of my color.

[W]hen I called the MTA about prime architects, some of them when I mentioned I was an MBE firm it was like, "Oh no, we have a consultant already who is working with us." It was just like they don't want to use you, basically. Then I have to force the issue, but that didn't get me anywhere obviously.... It's not like they came out and said it, but it's pretty obvious.

Some White females demurred.

I'm going to disagree with that from my experience. Because we've been a sub, we've been a prime and there are a lot of people that think, oh I'm a woman or I'm a minority and I can be a business owner tomorrow and I know how to do this and they don't. There's a lot of real issues with competency. I've held prime contracts and I had M and W and DBE goals to meet. I exhausted myself to meet those goals and found a severe lack of competency. People pop up every day of the week, think they're going to call themselves a contractor and calling yourself one and being able to do the work complete,

accurately, within the specifications is another thing. So, I think that's legitimate. Any investigation or monitoring your work or making sure that you're doing things properly."

I feel bad for the prime a lot of times because they're forced to take a lot of contractors to do the work and they're not really qualified to do the work. What happens is they don't pay their union benefits, the prime is stuck with paying union benefits, and that's happened quite a few times. You really have to look at it both ways. Yes, you need to get a piece of the pie. Start off with baby steps. I'm not complaining, believe me, because I'm busy as can be, but it has become overwhelming, and a lot of the requirements are too much for me to do. I do everything. I'm the only person who does the paperwork.

Women in particular related the continuing effects of stereotypes about gender roles.

"You're the secretary [of the construction firm]?" I get that a lot.

A lot of [men] think that just because I'm a woman I can't handle working in construction. They say, "How are you going to go out and supervise all these men?" I usually say, "Well, much better than some of the men." That's usually my answer, but they think because I'm petite I can't handle the situation. I get that from residential co-ops and condos that we work on. It's just a barrier in their minds that women shouldn't be in the construction field.... [I started my own business because] it was the old boys' club. I knew I wasn't going anywhere in our firm. It was all men. At the time it was probably in the low 20s. That's how many people were in the practice. I just didn't see myself stepping up. I tried to go out and get a really challenging job in the same field and I wasn't happy with any of the companies that I had interviewed with. I wasn't married, didn't have any kids, no major responsibility so I just said, "What the heck? Just give it a shot."

Shall I go on to the next [potential client] who when I walked in looked at me and said, "Oh my God, you're a woman. I can't do business with you.": Heavy construction: "honey, baby, sweetie, cookie." They don't even think you-- And when you show them that your knowledge is that you actually know this they look at you like, "Wow, you really got to do that?" It's amazing still. Not everyone. Don't get me wrong there are some very progressive men in the world these days, but there are still those that are like, "Why aren't you home with your children?"

Right away they're like, "Why don't you do something like marketing? Why don't you do some kind of typing or something? What do you do again?"

"Why do we start our own businesses?" For me, it was because I just didn't want to work for this crazy man anymore. I had worked for so many different people, and ended up working for probably one of those Roberts, six feet tall, but with his own intellectual challenges about how far women can go, and it was really the first time that I had ever experienced, face-to-face, somebody who was just so oblivious to the fact that there could be somebody, a woman who was strong and intelligent and knew what had to be done, and could do it. That was a barrier for me, and there was only so much time I

could take that before I said, "I'm perfectly capable of doing this and making more money for myself, and doing what I want to do without someone else telling me." And I choose who I want to work for, not this person.

I can just say that from the very first job I ever had, completely disrespected as a woman. I just laughed about it and kind of have expected it all through the years.

[A]s a worker prior to starting [my painting firm], I saw a bigger disparity among women in the construction industry as workers. And I thought wouldn't it be interesting if I could open a company and try and train and actually hire women to maintain a steady salary.... [I]f you look at...the union outfit for painters and paper hangers, I don't think there's one woman foreman, and there's well over 3,000 workers. It's quite apparent there's no room for advancement. In fact, if you look and see how many actually leave the apprenticeship program and go onto journeyman level painters, I think I might have been the only one in the last four years.

[W]hen I first came here to seek employment, I found a lot of difficulty getting the job level that I deserved in the larger firms because I was a woman. That's in a way how I ended up where I ended up at [firm] because that firm treated me fairly and they were great. But when I first came here, I was a little alarmed at the male nepotism in the architectural industry.

[A]s a female architect, I found it very difficult when I-- I found the attitudes I had to deal with very difficult.... I went to a meeting...where several architects had been invited, informational before we put in our proposals, and when I went in and sat down, one of the other architects that came in late which was from one of the larger firms, asked me for a cup of coffee when he came in. He assumed I was with a client and I was not there representing my firm and he asked me to get him a cup of coffee.... I also attended a dinner for CSI once, Construction Specifications Institute. It's a professional organization, where I sat at a table where one of the other architects got a little drunk and the jokes that came from him, both women- and minority-oriented, were very disturbing. It was also disturbing the people who laughed at it, but he was a big guy. Nobody wanted to tell him to shut up because he was a big guy. I myself left the table.... I find all the time mistakes about who I am and what my role is at meetings. Again, I do not generally find it with clients or at the firm I ended up at, but when we were integrating or working with other architectural firms, yeah, I found that to be very problematic. I also found it problematic-- At my old firm, we had very good interior designers, and we would sub out their work as well. Sometimes they worked with other firms and I found that I had to intercede for them as well in getting a certain level of respect from the male architects that they were working for.

Oh yeah [it would have been easier for a man]. Because well, I spent 13 years working for [firm], which is working with engineers. Especially back then, women were, You're just not going to make it, or you're less than, you know, although they didn't quite say that verbally, but it was like an undertone thing. But I can't say I was personally discriminated against. It's just a boy's club type of thing, and for a woman to get into the boy's club [is difficult].

[As a Black female] maybe I wouldn't recognize the sexism if I wasn't prone to be more outraged at racism, and very frankly, my own opinion is by the time you're a woman and a business owner, you're in denial.... But you do not want to admit, after all this struggle, and you're going to be a woman for the next however many years, you don't want to say there is sexism. Now I have the kind of personality that I will speak out against it. I mean you know my staff wonders how we can be in business every day.

[Y[ou run into [sexism] when you're administering construction a lot, but usually when you're administering construction, it's the contractors who initially are like, "Well, she's going to tell me what to do?" But I do find, for the most part, that after you've been on the job for a couple of meetings, a couple of months, once they understand that you know what you're doing, a lot of that does go away.... [City] is definitely more of a racist town than it is an anti-feminine town. It's also very anti-gay, the professions here too. So, I just know that from being the person who did the hiring at my old firm and getting references and seeing what's done. I see that more—not experiencing it myself, but I see that more than I see women being discriminated here.

[When the firm's owner learned that the proposed employee, who has a unisex name, was a female] he about had a heart attack. And he called me up to New York in the middle of this relocation that I was doing and sat there and was so condescending to me it was ridiculous. I mean, he said things to me like, you understand you're going on job sites and it's dirty, right? And, you understand that you're going to hear some bad language. Do you understand that? And I just finally, you know, I was going, yea, yea. I played the game for years. I've been the first woman that's ever worked for every company I've ever worked for. So I take it with a grain of salt. I don't get myself torqued up about it. But he went on and on and I finally just said to him, I said, did you read my resume? And he said, well yes I did. And I said, did you call my references? And he goes, of course I did, every one. I said, then why are we having this conversation? I don't understand. But that was my introduction into what I thought was cosmopolitan New York. Now here I worked in [southern state] for ten years as a woman in the construction industry, and I never had that crap thrown at me like that. There were other things but not like that. And I also worked in the steel industry. So I've always been in places where, you know, women aren't supposed to be.... And everybody [in New York] thinks they're so progressive and they're so hip and they're so with it and they are so backwards it's not even funny.... So I get in there and people don't do business with me because I'm a woman. You know, you might even say they do business with me in spite of the fact.

I think it's better than it was when I started. When I started the agency 24 years ago, and it's all technical products that I sell, I could get into any engineering place and the reason was they wanted to see how low cut my blouse was. And that was the reality. And it was an all male industry and they never saw how low cut my blouse was. Cause I wore a turtleneck. But it's different now. There are many women engineers like yourself out there. It's just different. I don't think at this point it matters that much if you're a woman owned business or you're not.

Several MBEs and WBEs agreed that perceptions of low quality work stem in part from the use of front companies in the early days of contracting affirmative action programs.

I think some of them still refer back to bad experiences they've had, like you mentioned, in dealing with a minority firm. And there is still the perception among many of them that we, you know, we don't do quality work. And, well I don't think that's the case at all. I think most of the firms out there now are just as good as the big ones because you got to have the same people. I mean you hire basically the same people as they do.... I think part of this is a historical issue. When all of the requirements came in with affirmative action and with MBE, WBE, there were a lot of firms set up that were not qualified. Were not ready to go. They were fronts for other people.... Put them out there and put someone there. That put a bad taste in the mouths of a lot of people and that still sits there. But those firms have all gone away because they couldn't make it and people saw through it. The firms that are there today are either long-term firms that have been able to make themselves known and qualified and they get work. A lot of it whether they are or not a minority firm. There are people in the majority firms that are still stung from something before. They don't want to, you know, they can't get that out of their mind. Another five years from now or ten years, all of us with gray hairs will be gone. Younger people that have not had bad experiences will turn around and I think will, we're seeing a continual change of more acceptance of a firm based on their qualifications rather than their ownership.

I concur because our experience what motivated us to do it was one of my contractors says, you're the real deal. Please get certified. Please get certified. Because they could see part of what they could skew over to me because, A, they had a history with me before I had the certification on [private jobs]. Their comment to me was, oh my God, the people that we tried this with in the past were so bad, that we looked bad because we had to come up and pick up their mess because they didn't know what they were doing. So they were encouraging me because I had a track record.... [The prime contractors] were encouraging those that were real and had a craft and a skill set to go get certified.

Despite these barriers, many participants advocated the need to persevere and succeed.

Yes, there's discrimination. Yes, there are companies that's going to manipulate smaller companies. Yes, the unions is going to manipulate smaller companies. But in owning a company and being the owners of the company and you know where you want to go. It's up to you to protect that company. The barriers are there. But you do have to decide how you're going to get over them. And some of us is playing catch up. Me, I'm dealing with a [majority, male company]company that's been around 75 years. I've only been around 15. I can't make 75 up in 15. So I've got to strategically take what I'm getting out of where I'm going and go where I want to go. And I can't, I can't look past where I'm at. So if I'm paying attention to what my company is doing and how my company is performing, then I can strategically grow my business.... Yes, being a woman company is hard. Yes, being a Black company is hard. But, it's business. It's what we decided to go into. Yes, there are barriers in every aspect of it. But it's business. And we're not the

only ones to have— that's going through it. It might be a little more difficult for us but other owners has went through the same thing and started. But some of them are generations ahead of us so we can't sit here and blame all the problems of the world and equate it to those few things that you got on there. And say, look, I'm Black, I'm being discriminated against. That's done. We need to be able to perform.... Nobody's our savior. As a business owner you're your own savior.

A few M/WBEs had not encountered discriminatory barriers. One Black male contractor reported that race has not been a factor in his entrepreneurial opportunities.

[F]or me race has never come into play. Because like I said earlier, I put out a good product. And for me also I'm getting into a circle where it's the, you know, movers and shakers and I'm finding out a lot and I'm getting a lot of opportunities.... I mean if you get recognized for your performance, then I don't think, you know, Black, White, orange, that doesn't matter because it's about the money. You know, the people in power they want to do it as cheap as they can. It's about the money. They don't care what you are.

One White female reported that her gender is a competitive advantage.

I find it's an advantage to be a woman in a man's world., to tell you the truth.

Some M/WBEs agreed that the obstacle is the size of their firms, not their race or gender.

I think it's just a small business thing. Trying to get to that next level is, is just so tough.

2. Exclusion from Industry Networks

Many minorities and women recounted their exclusion from the industry networks necessary for success.

Unfortunately, I think it's still a comfort level that they utilize people that they've known in the past.

[I]t's actually the relationship that's already in place as to who they give it to.

[I]f they have people that they always work with, they seem to know about RFPs right away.

One female consultant gave a specific example of how she had been shut out of State work.

So, we put together a proposal and when it was submitted we were not selected. And...I said, well, can you just give me some feedback. And they said, well, we went with the [non-M/WBE] firm who prepared all the grant applications and who was already in with [the local agency]. So, then the next week I got another one and it was the exact same form letter just from a different town. So, I called them up and I said, who is the firm that's putting together your preapplication package for the grant? And it was the exact same firm. And I said, well, if I put together a competitive proposal, the same price,

would you, are you still going to go with them? And, you know, without committing to anything, they more or less said, well sure, why would I switch?

Even if the exclusion resulted from past racism and sexism, M/WBEs still labored under the effects today.

I hate to use the term good old boy network but for lack of a better phrase I'll just default to that phrase. But what I'm seeing is an environment in which the relationship network is very tight, very much in place based on historical performance.

Unfortunately, I think it's a reality, and I think one reason is because a lot of women-owned business as well as minority-owned business, most of us, I think the oldest was maybe 45 years in this room, for the majority of us, we've been around maybe 20 years. And the systems have been out there much longer than that, and so we're always kind of behind that 8-ball. We're not established into the system, and so with that and the fact that they can get away with not doing business with M/WBE, they do it.

I do think that in the State there's a lot of good old boys networks going on, and that's very hard to penetrate. And you've got to balance do I put groceries on the table today, or do I try to make substantial change? And I think I go for the groceries most of the time, than ramming my head against a brick wall.

[There are n]ot lots of opportunities [because of the good ole boy network], I don't think, for me. You don't see very many African-American women in architecture around here.

3. Jobsite harassment

Some minority and women owners experienced outright harassment on worksites. Black males reported particularly disturbing incidents.

I've been on jobs where in the background you start hearing like Congo music to where I've had to stop the job and almost get physical, although I didn't. It happened more than once. It's been a number of occasions.

Basically, [the foreman] said, "Well, you shouldn't even be here." I had to go to the-- I was working for [large prime contractor] at the time, and I had to go to the company and let them know it happened, and they were very upset. They wound up firing the guy, and the job moved on, but that's just one example.

Up to last month, I was on a job and somebody wrote on the walls, "That's the nigs," and then they put on the fence, "F the nigs," so I called the G[eneral] C[ontractor]... You know, and a lot of people have resentment when you come on the job and get the job and they know basically why you did get the job. So, they feel offended that you actually got the job. It's only because you were a minority, and really, you can feel tension when you're on these jobs.

A Black woman had experienced both racism and sexism on the jobsite.

I go to the job site. [A worker] was cussing. He wasn't the foreman, and he was having a fight with someone else. So, I stepped in to say something. He shouted down on me. I say, "I'm wearing the pants. I don't know who you are." I told him, "At the end of the day, I need your time sheet. You are done."... And another [worker at the jobsite] called me a nigger.

4. Applying for Commercial Loans

Many minority and women owners that they found it difficult to obtain working capital. While perhaps not the direct result of discrimination by the lender, that minorities and women have been excluded from the construction and other industries hampers their access to family wealth and other networks that support growing businesses.

Some WBEs reported encountering outright discrimination.

[Three or four years ago, there was a] banker who sat there talking to me and I told him everything I needed and then at the end of the 20 minutes he said to me, "Well, why don't you bring your husband back and then we can talk about it." Meanwhile, I run all the finances of my own business.

I took the company over from my father, worked for him for 30 plus years, and when he passed, the amount of personal guarantees my husband and I had to sign were unbelievable.... I think it's because I'm a woman in a man's industry.... You have to be very tough.

5. Obtaining Work on Public Sector Projects

M/WBEs reported that while it is easier to obtain subcontracts than prime contracts on public projects because of affirmative action goals, it is still difficult to get work, receive fair treatment, and be paid on time. Many believed that majority prime firms use them only if forced to do so.

All the work that I have access to is because of my certification at the New York City School Construction Authority, DANSY, and other agencies.

[O]nly in cases where they need your credit is there a benefit. And they let you know that.

In the absence of an MBE program minority firms won't be as successful in my mind. Or women, you know, because it gives us a chance to get some experience, build a track record so that we can eventually compete.

I think one of the characteristics of us, this group of people here in New York State, is that we are really sensitive to not saying that we're being discriminated against.... We're supposed to not be like that. We're New York State.... Yet the very ways that the DBE

and the M/WBE programs are administered, they are administered in a discriminatory manner. The State agencies actually discriminate against us in the way they administer them by trying to not meet goals and by downplaying goals and allowing goals to be characterized as negative things for those women and those minorities.... [I]t's also the culture of the general contractors in the state, particularly upstate.... But they do discriminate against us. I mean I call up. "Hello? My name [feminine name]. I'm following up on a bid," and the man will just hang up on me... This is a GC. That's because I'm a woman. You could say, "Oh, well maybe it's this or maybe it's that." No. It has to do with the fact that I'm a woman who's quoted him a job, quoted a goal or given him a quote for a goal. He knows that if he can keep me at arms length, he can skip the whole process and just discriminate against me in the process and blow me off.

[A] lot of times when you get these jobs based on fulfilling the goals and I wish in the future where it wouldn't even matter what the color is or whatever where they would just reach out, but as of today, it's just not that way. I mean I probably wouldn't get a job if a goal wasn't in the contract document to be filled.... I wish it wasn't even like that where a GC would just reach out and say, "Look, I'm bidding on this job. There's no goal requirement. Give us a number," but that never happens, not that I remember, and I've been around since 1989. It never happens until only there's a goal and a participation. "Give us a price," and that's the only way I'm getting work.

I work for a very large prime contractor a lot on this building down here. I watched them abuse and misuse minority contractors to the degree that I actually lost my job because I advocated to get one contractor paid. They owed about \$80,000 and the big story was, "Well, if you want to settle today for \$26,000 we can settle this up today. If you don't want to settle for the \$26,000, we'll see you in about eight or nine months." I would grab these guys and say, "Uh-uh [no].... I'd say that 85% of it was the mentality of they're a minority; they're not going to scream loud enough and if they do scream there's nobody to hear their crying anyways.

One woman, who worked for a majority, male-owned firm, recounted the response when she objected that a large DOT and county project had only old, white male firms involved in the design phase.

[The project manager] sent me an email back that said, "This is really none of your concern and everything is being taken care of." Nobody made any effort whatsoever.... So, that was really a depressing thing for me at the time.

Some owners reported that although their firms have been listed on the contract, they were not utilized.

The three instances that I have been contacting in the past three years to submit paperwork, they submitted my criteria, certification, certificate, secured the job and never used us.

I have the big problem with what you were mentioning about being contracted, reaching the goal, and then being substituted. After, even with all the paperwork being filled out,

the bids being sent in, being listed with the state. And then when the job starts they find somebody cheaper than you and put them on the job.

You'd supply the bids because you're the minority group, that you'd supply the bids but they actually never intend to use you.

I know for a fact on several jobs because it got back to me that I had been used as a WBE, but I was never given any work or never even asked today. But they put my name on the list.

The other thing is that when we subcontract to someone, or we team with someone on a contract that has goals, we are only being allowed to work on the one little teeny tiny portion that they want us to work on. That's to say that, and I'm sure other people have said this and you've heard it before, is that they put you on their team because you're certified, but then you never actually get any work out of it, or the work you do get out of it is not the work that you thought you were going to get in the first place.

[A] couple of months ago I put my number in and they used my name and they didn't end up-- They put down my name but they didn't end up using me. They actually, what they did I found out through the general contractor actually told me that this company put my name down but they also put the other name down of somebody that was \$7,000 less than me and they put on there, "We will use the WBE person if you give us \$7,000 to pay her," and they didn't end up doing that.... I did go back to the contractor and say, "I will meet that. I will go down \$7,000," and they did not allow me to do that.

[I]t's hard because you set yourself up with your trucks and your drivers according to the particular jobs that you're supposed to perform and then when it's pulled out from underneath you they don't even tell you. The start date's supposed to come around and nobody says anything. You call and you say, hey, and they're like, oh, we already have somebody out there.... [T]hat's fraudulent and the contractors that are trying to comply are being penalized along with people like myself who are bidding and planning and financially being involved with being on these jobs and then not actually being, performing the job.

[S]ometimes we get on projects and don't get the work.

I have given out lots and lots of sub numbers, and that's just to help them get their good faith efforts; I never get that work. After you give out enough and look at those numbers and know darn well that you were competitive, but you don't have the energy once again to pursue it and complain, you let the thing go. You just stop giving the numbers. You just say, "You know what, I've got to find work or money someplace else."

[I]f they feel like the job is too big and they want all that money themselves, what they'll do is they'll put you on the bid thing for like material. They'll give you a check, like \$2000 or \$3000 on a 25% markup on the material just to use your minority thing, and they pay you off to the side, and they go do the job themselves.

Some firms had their names listed by bidders without even being contacted, let alone reaching an agreement.

We never even submitted what the scope of the project would be, the dollar figures. It was they used our company to secure the entire contract [without getting a quote].... They made that up. They made that figure up.... They do that all the time.

They're saying is that the paperwork that's mandated for the prime contractor to send in to the state is what the bid from the subcontractor, which would be myself, was. It's not submitted from me. It's submitted from the contractor. They are actually putting in figures that they make up and send it in and then if there's any dispute after the fact, they just said, well she said this, but I said it's all on paper. So they don't write nothing, the paperwork is gray when it comes to the utilization forms that are sent in and they are able to be manipulated by the prime contractor. And this is what I found out especially on this last job that I had to actually pull my bid because they manipulated my numbers on their end, nothing written by myself.

[Prime bidders] would call me and say, "I want to put you on a utilization form," and actually put a number out there before I even quote them a number. I'm like, "Where did this number come from?" You know, just to say that they contacted a minority company, a woman-owned business. They'll put their number on themselves, before you even look at the project or anything.

Some M/WBEs reported that prime contractors contacted them too late to provide quotes.

It's the timeliness is the big [issue].

[The prime contractors] call you up and it's always a rush. You get an email that says, "You've got to do this. You've got to do something in the next 48 hours." I get that all the time, especially from engineers. I had never heard of this firm. I called them up and said, "Who are you? Why are you asking?" I'm a little bit smarter than I was a year ago. I don't have time for this nonsense.

And these generals...when they have to fill their quotas, they advertise on Friday, your bid is due Monday morning at 9 o'clock.

[Y]ou get an email on Friday saying, "We're looking for your participation by Monday."

Some participants surmised that they were better off not to work for prime bidders that do not support the program's objectives.

[A]fter a while you figure it out that the prime really doesn't want you on their job, there's no sense in pushing it because they'll make your life a miserable hell. If you do get the job and you do work for them, they'll find ways that you never want to go back and work for them. So it's just as well that sometimes you don't get the job that you wanted.

If they're going to treat you like garbage and not going to pay you like you should be, then why am I going to go out of my way to perform for them and give them what it is that they're asking for and they're going to mess around with not paying me like they should?

M/WBEs in the design fields were often overlooked and not included on teams, even when the overall project has goals. Engineers and designers particularly complained that their fields were often ignored; the focus is solely on construction.

I mean you get a billion dollar project, sure a lot of it is going to be construction, but you also know that a great deal is going to be in other areas. The state has been pretty slack about saying, "Look, in this design stage, or pre-design stage, we're going to spend \$25 million," or \$100 million. But nobody talks about goals there. We just had a project that was aborted in Rochester, but not before \$25 million was spent on pre-design. Because everybody thinks about construction goals and supplies.

I'm at the beginning [of the design process], so a lot of times when the RFP goes out for the architecture or engineering firm, it's just conceptual at that point. So I think it's a little bit more difficult for somebody in my position to acquire the goals because there's a lot of areas where they can acquire the goals from where I am in the design process to the end....

6. Obtaining Work on Private Sector or "Non- Goals" Projects

Many M/WBEs reported that they had not received work through non-goals programs, and rarely are solicited for private jobs.

I guess in government I usually mention that I'm MBE certified, but in the private industry it certainly does not help. It just makes them feel that you think you're entitled to something, and that kind of hurts.

It's the private industry that doesn't really need or isn't looking for an MBE.

Some certified firms, especially those owned by White women, stated that once they were used on public jobs, they were solicited on all that prime contractor's projects.

If they're putting a bid on it, now that I'm on their list, I get everything they bid.... Even on projects without goals.

I work with contractors that they need the goal. I work with them when they don't need the goal.

I do get solicited for non-goal projects, and I actually do 50% WBE work and 50% non-WBE work. I have real luck with this WBE program.

The ones that I've worked with will call me on goals or non-goals jobs. The ones that I've never done any work with are less likely to call me for the non-goal jobs....

7. Conclusion

Consistent with other evidence reported in this Study, anecdotal interview information strongly suggests that M/WBEs continue to suffer discriminatory barriers to full and fair access to State and private sector contracts. This evidence includes stereotypes, perceptions of M/WBE incompetence and being subject to higher performance standards; discrimination in access to commercial loans; difficulties in receiving fair treatment in obtaining public sector subcontracts; and exclusion from private sector opportunities to perform as either prime contractors or as subcontractors. While not definitive proof that New York has a compelling interest in implementing race- and gender-conscious remedies for these impediments, the results of the surveys and the personal interviews are the types of evidence that, especially when considered along side the numerous pieces of statistical evidence assembled, the courts have found to be highly probative of whether the State would be a passive participant in a discriminatory marketplace without affirmative interventions.

C. Tables

Table 8.1. Race, Sex and Procurement Category of Mail Survey Respondents

Group	Construction	CRS	Services	Commodities	Total
African American	34	16	73	4	127
Hispanic	50	28	52	10	140
Asian	33	25	97	21	176
Native American	0	0	6	1	7
Minorities with Unknown Race/Ethnicity	0	0	7	0	7
Non-minority Women	66	53	169	37	325
Total M/WBE	183	122	404	73	782
Non-minority Men	119	42	163	42	366
Total	302	164	567	115	1,148

Source: NERA NYS mail surveys.

Anecdotal Evidence of Disparities in the State's Marketplace

Table 8.2. Survey Respondents Indicating They Had Worked or Attempted to Work for Public Sector Agencies in the Last Five Years

Worked or Attempted to Work, Last Five Years	African-American	Hispanic	Asian	Native American	Total Minority	Non-minority Female	Total M/WBEs	Non-minority Male
ALL INDUSTRIES								
With NYS	55.6%	54.0%	54.9%	14.3%	54.1%	42.4%	49.2%	37.1%
	(126)	(139)	(175)	(7)	(447)	(321)	(768)	(361)
With Other Public Entity in Market Area	62.7%	64.0%	52.8%	28.6%	58.7%	53.3%	56.4%	43.4%
	(126)	(139)	(176)	(7)	(448)	(321)	(769)	(364)
With any Public Entity in Market Area	70.6%	67.6%	62.3%	28.6%	65.8%	57.5%	62.3%	50.6%
	(126)	(139)	(175)	(7)	(447)	(320)	(767)	(362)
CONSTRUCTION								
With NYS	54.5%	54.0%	72.7%	-	59.5%	56.1%	58.2%	34.5%
	(33)	(50)	(33)	(0)	(116)	(66)	(182)	(116)
With Other Public Entity in Market Area	69.7%	60.0%	78.8%	-	68.1%	72.7%	69.8%	45.8%
	(33)	(50)	(33)	(0)	(116)	(66)	(182)	(118)
With any Public Entity in Market Area	72.7%	62.0%	81.8%	-	70.7%	77.3%	73.1%	51.3%
	(33)	(50)	(33)	(0)	(116)	(66)	(182)	(117)
CRS								
With NYS	43.8%	67.9%	60.0%	-	59.4%	59.6%	59.5%	64.3%
	(16)	(28)	(25)	(0)	(69)	(52)	(121)	(42)
With Other Public Entity in Market Area	75.0%	82.1%	72.0%	-	76.8%	73.6%	75.4%	73.8%
	(16)	(28)	(25)	(0)	(69)	(53)	(122)	(42)
With any Public Entity in Market Area	75.0%	82.1%	72.0%	-	76.8%	76.9%	76.9%	81.0%
	(16)	(28)	(25)	(0)	(69)	(52)	(121)	(42)

Anecdotal Evidence of Disparities in the State's Marketplace

Table 8.2. Survey Respondents Indicating They Had Worked or Attempted to Work for Public Sector Agencies in the Last Five Years, cont'd

Worked or Attempted to Work, Last Five Years	African-American	Hispanic	Asian	Native American	Total Minority	Non-minority Female	Total M/WBES	Non-minority Male
OTHER SERVICES								
With NYS	57.5%	43.1%	45.8%	0.0%	47.8%	28.9%	39.8%	29.8%
	(73)	(51)	(96)	(6)	(226)	(166)	(392)	(161)
With Other Public Entity in Market Area	57.5%	53.8%	37.1%	16.7%	46.9%	36.4%	42.5%	29.0%
	(73)	(52)	(97)	(6)	(228)	(165)	(393)	(162)
With any Public Entity in Market Area	68.5%	61.5%	53.1%	16.7%	59.0%	41.8%	51.8%	38.5%
	(73)	(52)	(96)	(6)	(227)	(165)	(392)	(161)
COMMODITIES								
With NYS	75.0%	70.0%	61.9%	100.0%	66.7%	54.1%	60.3%	45.2%
	(4)	(10)	(21)	(1)	(36)	(37)	(73)	(42)
With Other Public Entity in Market Area	50.0%	88.9%	61.9%	100.0%	68.6%	64.9%	66.7%	61.9%
	(4)	(9)	(21)	(1)	(35)	(37)	(72)	(42)
With any Public Entity in Market Area	75.0%	88.9%	61.9%	100.0%	71.4%	64.9%	68.1%	64.3%
	(4)	(9)	(21)	(1)	(35)	(37)	(72)	(42)

Source: NERA calculations from NYS mail surveys.

Note: Total number of valid responses in parentheses.

Table 8.3. Firms Indicating They Had Been Treated Less Favorably Due to Race and/or Sex While Participating in Business Dealings

Business Dealings	African American	Hispanic	Asian	Native American	Total Minority	Non-minority Female	Total M/WBES	Non-minority male
Applying for commercial loans	37.5% (72)	19.6% (92)	15.8% (101)	0.0% (1)	22.9% (266)	13.0% (161)	19.2% (427)	5.0% (200)
Applying for surety bonds	19.0% (42)	13.2% (68)	12.3% (73)	- (0)	14.2% (183)	6.3% (126)	11.0% (309)	5.0% (161)
Applying for commercial or professional insurance	14.9% (87)	8.4% (107)	8.6% (128)	0.0% (1)	10.2% (323)	5.0% (218)	8.1% (541)	3.4% (232)
Hiring workers from union hiring halls	24.2% (33)	8.2% (61)	3.4% (59)	- (0)	9.8% (153)	3.1% (97)	7.2% (250)	4.4% (135)
Obtaining price quotes from suppliers or subcontracts	27.3% (66)	10.0% (100)	10.3% (107)	0.0% (2)	14.2% (275)	9.6% (198)	12.3% (473)	3.3% (212)
Working or attempting to obtain work on public-sector prime contracts	42.9% (77)	22.2% (99)	22.8% (114)	50.0% (2)	28.1% (292)	20.3% (177)	25.2% (469)	16.0% (187)
Working or attempting to obtain work on public-sector subcontracts	45.8% (72)	22.4% (98)	21.1% (114)	50.0% (2)	28.0% (286)	18.9% (175)	24.5% (461)	14.8% (183)
Working or attempting to obtain work on private-sector prime contracts	46.3% (82)	16.2% (105)	22.8% (123)	66.7% (3)	27.2% (313)	18.8% (197)	23.9% (510)	7.6% (211)
Working or attempting to obtain work on private-sector subcontracts	44.2% (77)	20.2% (104)	18.0% (122)	66.7% (3)	25.8% (306)	17.0% (188)	22.5% (494)	9.2% (207)
Receiving timely payment for work performed	41.4% (87)	19.8% (106)	23.3% (129)	33.3% (3)	27.1% (325)	23.9% (222)	25.8% (547)	14.2% (233)
Functioning without hindrance or harassment on the work site	27.1% (70)	10.4% (96)	11.3% (115)	0.0% (2)	14.8% (283)	13.4% (187)	14.3% (470)	4.9% (206)
Joining or dealing with construction trade associations	26.0% (50)	8.0% (75)	3.9% (76)	- (0)	10.9% (201)	6.0% (133)	9.0% (334)	6.3% (175)
Having to do inappropriate or extra work not required of comparable non-M/WBES	18.6% (70)	17.0% (100)	12.5% (104)	100.0% (1)	16.0% (275)	14.6% (185)	15.4% (460)	5.9% (205)
Double standards not required of comparable non-M/WBES	28.4% (74)	13.4% (97)	9.4% (106)	- (0)	15.9% (277)	9.6% (187)	13.4% (464)	6.3% (206)
In any one of the business dealings listed above	67.3% (113)	41.9% (124)	40.3% (149)	75.0% (4)	49.0% (390)	37.5% (261)	44.4% (651)	23.3% (270)

Source: See Table 8.2 Note: Total number of valid responses in parentheses. Figures in **boldface** type are statistically significantly different from non-M/WBES using a conventional two-tailed Fisher's Exact Test and within a 95% or better confidence interval. Figures in **boldface italicized** type are significant within a 90% confidence interval.

Anecdotal Evidence of Disparities in the State's Marketplace

Table 8.4. Firms Indicating They Had Been Treated Less Favorably Due to Race and/or Sex While Participating in Business Dealings (Rankings)

Business Dealings	African-American	Hispanic	Asian	Native American	Total Minority	Non-minority Female	Total M/WBEs
Applying for commercial loans	6	5	6	7	6	8	6
Applying for surety bonds	12	9	8	–	10	11	11
Applying for commercial or professional insurance	14	12	12	10	13	13	13
Hiring workers from union hiring halls	11	13	14	–	14	14	14
Obtaining price quotes from suppliers or subs	8	11	10	9	11	10	10
Working or attempting to obtain work on public sector prime contracts	4	2	2	4	1	2	2
Working or attempting to obtain work on public sector subcontracts	2	1	4	5	2	3	3
Working or attempting to obtain work on private sector prime contracts	1	7	3	2	3	4	4
Working or attempting to obtain work on private sector subcontracts	3	3	5	3	5	5	5
Receiving timely payment for work performed	5	4	1	6	4	1	1
Functioning without hindrance or harassment on the work site	9	10	9	8	9	7	8
Joining or dealing with trade associations	10	14	13	–	12	12	12
Having to do extra work not required of others	13	6	7	1	7	6	7
Having to meet quality or performance standards not required of others	7	8	11	–	8	9	9

Source: See Table 8.2.

Table 8.5. Prevalence of Disparate Treatment Facing M/WBEs

	(1)	(2)	(3)	(4)	(5)	(6)
M/WBE	0.221 (6.25)	0.223 (5.89)				
Minority			0.276 (6.86)	0.285 (6.54)		
Non-minority Female			0.171 (3.78)	0.172 (3.61)	0.173 (3.81)	0.174 (3.64)
African-American					0.458 (8.16)	0.465 (7.72)
Hispanic					0.195 (3.49)	0.216 (3.67)
Asian/Pacific Islanders					0.206 (3.90)	0.213 (3.69)
Native American					0.521 (2.30)	0.529 (2.33)
Owner's Education (3 indicator variables)	No	Yes	No	Yes	No	Yes
Firm Age (4 indicators)	No	Yes	No	Yes	No	Yes
Employment size bracket (6 indicators)	No	Yes	No	Yes	No	Yes
Sales/revenue size bracket (4 indicators)	No	Yes	No	Yes	No	Yes
Industry category (3 indicators)	Yes	Yes	Yes	Yes	Yes	Yes
N	926.00	891.00	926.00	891.00	926.00	891.00
Pseudo R ²	0.04	0.06	0.05	0.06	0.07	0.08
Chi ²	52.84	66.15	60.84	74.61	87.99	98.48
Log likelihood	(590.01)	(559.30)	(586.01)	(555.07)	(572.43)	(543.13)

Source: See Table 8.2.

Note: Reported estimates are derivatives from Probit models, t-statistics are in parentheses. T-statistics of 2.58 (1.96) (1.64) or larger indicate that the result is significant within a 99 (95) (90) percent confidence interval.

Table 8.6. Prevalence of Disparate Treatment Facing M/WBEs, by Type of Business Dealing

Business Dealings	African-American	Hispanic	Asian	Native American	Total Minority	Non-minority Female	Total M/WBEs
Applying for commercial loans	38.4% (5.34)	21.2% (3.45)	16.5% (2.83)	0.0% (0.00)	19.3% (4.68)	13.7% (2.77)	13.3% (4.29)
Applying for surety bonds	12.1% (2.02)	8.9% (1.82)	8.3% (1.67)	0.0% (0.00)	7.8% (2.30)	1.0% (0.26)	4.7% (1.69)
Applying for commercial or professional insurance	13.8% (3.11)	6.7% (1.86)	9.3% (2.48)	0.0% (0.00)	7.2% (2.98)	2.6% (0.98)	4.4% (2.41)
Hiring workers from union hiring halls	27.5% (3.00)	4.3% (0.88)	-2.4% (-0.58)	0.0% (0.00)	5.2% (1.36)	-2.9% (-0.70)	2.3% (0.67)
Obtaining price quotes from suppliers or subcontracts	33.5% (4.95)	9.9% (2.04)	10.7% (2.27)	0.0% (0.00)	12.4% (3.64)	9.7% (2.56)	8.3% (3.44)
Working or attempting to obtain work on public sector prime contracts	27.7% (3.90)	9.2% (1.55)	6.3% (1.09)	38.9% (1.10)	11.8% (2.66)	4.4% (0.88)	8.4% (2.17)
Working or attempting to obtain work on public sector subcontracts	30.3% (4.11)	11.5% (1.91)	6.4% (1.11)	39.2% (1.08)	12.8% (2.87)	4.7% (0.94)	9.1% (2.33)
Working or attempting to obtain work on private sector prime contract	44.0% (6.19)	13.3% (2.22)	20.2% (3.46)	66.4% (2.40)	21.2% (4.99)	15.4% (3.11)	15.4% (4.62)
Working or attempting to obtain work on private sector subcontracts	35.9% (5.16)	13.1% (2.28)	10.0% (1.81)	60.4% (2.09)	16.2% (3.92)	10.3% (2.16)	12.0% (3.54)
Receiving timely payment for work performed	35.0% (5.22)	8.5% (1.51)	15.0% (2.67)	51.7% (1.84)	16.4% (3.99)	12.3% (2.72)	12.8% (3.81)
Functioning without hindrance or harassment on the work site	26.9% (4.14)	9.2% (1.90)	11.0% (2.24)	0.0% (0.00)	11.3% (3.28)	11.8% (2.91)	8.7% (3.40)
Joining or dealing with construction trade associations	18.6% (3.28)	1.7% (0.45)	-3.4% (-1.00)	0.0% (0.00)	3.6% (1.23)	-0.8% (-0.25)	2.0% (0.76)
Having to do inappropriate or extra work not required of comparable non-M/WBEs	17.2% (2.87)	14.4% (2.79)	10.5% (2.08)	0.0% (0.00)	11.5% (3.25)	11.6% (2.86)	9.0% (3.36)
Having to meet quality, inspection, or performance standards not required of comparable non-M/WBEs	23.0% (3.93)	8.6% (1.84)	5.0% (1.14)	0.0% (0.00)	9.3% (2.84)	4.7% (1.31)	6.3% (2.44)
In any one of the business dealings listed above	46.5% (7.72)	21.6% (3.67)	21.3% (3.69)	52.9% (2.33)	28.5% (6.54)	17.2% (3.61)	22.3% (5.89)

Source: See Table 8.2.

Note: Reported estimates are derivatives from Probit models with specification such as in Table 8.5, columns (2). T-statistics are in parentheses. T-statistics of 1.96 (1.64) or larger indicate that the result is significant within a 95 (90) percent confidence interval. Results with T-statistics of 1.96 or higher are **boldfaced**. Results with T-statistics of 1.64 or higher are **boldfaced italicized**.

Table 8.7. Firms Indicating that Specific Factors in the Business Environment Make It Harder or Impossible to Obtain Contracts, Sample Differences

Business Environment	African-American	Hispanic	Asian	Native American	Total Minority	Non-minority Female	Total M/WBEs	Non-M/WBEs
Bonding Requirements	63.0% (54)	52.1% (71)	40.3% (72)	50.0% (2)	50.8% (199)	44.6% (112)	48.6% (311)	44.4% (142)
Insurance Requirements	25.0% (80)	20.4% (98)	13.1% (107)	0.0% (3)	18.8% (288)	20.9% (177)	19.6% (465)	24.3% (202)
Previous Experience Requirements	29.9% (87)	22.9% (96)	20.9% (115)	0.0% (4)	23.8% (302)	22.0% (205)	23.1% (507)	16.7% (227)
Cost of Bidding or Proposing	43.8% (80)	40.7% (91)	29.4% (109)	66.7% (3)	37.5% (283)	45.9% (185)	40.8% (468)	35.9% (206)
Large Project Sizes	69.0% (84)	57.6% (92)	52.8% (106)	100.0% (2)	59.5% (284)	56.3% (190)	58.2% (474)	37.2% (191)
Price of Supplies or Materials	31.9% (69)	26.5% (83)	26.8% (97)	66.7% (3)	28.6% (252)	36.3% (168)	31.7% (420)	26.8% (183)
Obtaining Working Capital	66.3% (80)	52.9% (87)	31.5% (92)	100.0% (3)	50.0% (262)	45.5% (167)	48.3% (429)	34.6% (179)
Late Notice of Bid/Proposal Deadlines	64.1% (78)	59.5% (79)	48.4% (93)	100.0% (3)	57.3% (253)	53.8% (171)	55.9% (424)	50.8% (185)
Prior Dealings with Owner	15.5% (84)	14.8% (88)	14.3% (112)	0.0% (3)	14.6% (287)	14.8% (182)	14.7% (469)	11.3% (204)

Source: See Table 8.2.

Note: Total number of valid responses in parentheses. Figures in **boldface** type are statistically significantly different from non-M/WBEs using a conventional two-tailed Fisher's Exact Test and within a 95% or better confidence interval. Figures in **boldface italicized** type are significant within a 90% confidence interval.

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Table 8.8. Firms Indicating that Specific Factors in the Business Environment Make It Harder or Impossible to Obtain Contracts, Regression Results

Business Environment	M/WBEs
Bonding Requirements	+
Insurance Requirements	+
Previous Experience Requirements	+
Cost of Bidding or Proposing	+
Large Project Sizes	+ [*]
Price of Supplies or Materials	+
Obtaining Working Capital	+
Late Notice of Bid/Proposal Deadlines	+
Prior Dealings with Owner	+

Source: See Table 8.2.

Note: A plus (+) indicates that a group is more likely than non-M/WBEs to report difficulty with business environment factors. A minus (−) indicates that a group is less likely than non-M/WBEs to experience difficulty. An asterisk (*) indicates that the disparity is statistically significant within a 95% or better confidence interval. A dagger (†) indicates that the disparity is statistically significant within a 90% or better confidence interval.

Anecdotal Evidence of Disparities in the State's Marketplace**Table 8.9. Percent of M/WBEs Indicating that Prime Contractors Who Use Them as Subcontractors on Projects with M/WBE Goals Seldom or Never Hire Them on Projects without Such Goals**

M/WBE Group	All Industries	Construction	CRS	Services	Commodities
African American	74.4% (78)	65.4% (26)	70.0% (10)	80.0% (40)	100.0% (2)
Hispanic	67.1% (76)	58.8% (34)	75.0% (20)	81.3% (16)	50.0% (6)
Asian	73.0% (100)	62.5% (24)	58.8% (17)	83.0% (53)	66.7% (6)
Native American	100.0% (4)	- (0)	- (0)	100.0% (3)	100.0% (1)
Total Minority	72.3% (260)	61.9% (84)	68.1% (47)	82.5% (114)	66.7% (15)
Non-minority Female	62.6% (155)	56.1% (41)	50.0% (34)	73.8% (61)	63.2% (19)
Total M/WBE	68.7% (415)	60.0% (125)	60.5% (81)	79.4% (175)	64.7% (34)

Source: See Table 8.2.

Note: Total number of valid responses in parentheses.

Table 8.10. Percent of M/WBEs Indicating that Prime Contractors Who Use Them as Subcontractors on Projects with M/WBE Goals Seldom or Never *Solicit* Them on Projects without Such Goals

M/WBE Group	All Industries	Construction	CRS	Services	Commodities
African American	73.7% (76)	72.7% (22)	80.0% (10)	71.4% (42)	100.0% (2)
Hispanic	61.3% (75)	45.5% (33)	73.7% (19)	88.2% (17)	33.3% (6)
Asian	67.0% (97)	61.5% (26)	56.3% (16)	71.4% (49)	83.3% (6)
Native American	50.0% (4)	- (0)	- (0)	66.7% (3)	0.0% (1)
Total Minority	67.3% (254)	58.0% (81)	68.9% (45)	74.3% (113)	60.0% (15)
Non-minority Female	66.0% (156)	52.4% (42)	59.4% (32)	77.3% (66)	68.8% (16)
Total M/WBE	66.8% (410)	56.1% (123)	64.9% (77)	75.4% (179)	64.5% (31)

Source: See Table 8.2.

Note: Total number of valid responses in parentheses.

IX. New York State's Minority- and Women-Owned Business Enterprise Program

In this Chapter, we provide a general overview of New York State's Minority- and Women-Owned Business Enterprise Program, followed by a summary of business owner experiences with the Program. This review is to assist the State in evaluating its current race- and gender-conscious efforts to ensure that future initiatives are narrowly tailored.

A. Overview of New York State's Minority- and Women-Owned Business Enterprise Program

Article 15-A of the Executive Law, Participation by Minority Group Members and Women with Respect to State Contracts, was first enacted in 1988. Article 15-A embodies the policy to promote equal opportunity in employment for all persons, without discrimination on account of race, creed, color, national origin, sex, age, disability or marital status, to promote equality of economic opportunity for minority group members and women, and business enterprises owned by them, and to eradicate through effective programs the barriers that have unreasonably impaired access by minority and women-owned business enterprises to State contracting opportunities.

The current law, reauthorized in 2003, defines "minority group member" as a United States citizen or permanent resident alien who is Black, Hispanic (persons of Mexican, Puerto Rican, Dominican, Cuban, Central or South American of either Indian or Hispanic origin, regardless of race), Native American or Alaskan native, or Asian and Pacific Islander. Article 15-A applies to state departments, colleges and universities and certain authorities.²⁶⁵ It establishes a statewide certification program.

The statute creates the Division of Minority and Women's Business Development, which is responsible for Program administration, oversight and reporting. The Director of the Division promulgates rules and regulations to ensure that certified businesses are given the opportunity for meaningful participation in the performance of State contracts and to identify those state contracts for which certified businesses may best bid.

Article 15-A covers "state contracts" for labor, services, supplies, equipment and materials in excess of \$25,000, and acquisition, demolition, reconstruction, etc. of real property and improvements in excess of \$100,000. For construction contracts, bidders must demonstrate a good faith effort to solicit certified firms and agree to be bound by their utilization plans for M/WBE participation. For all contracts, contractors must submit a utilization plan before award, which must be reviewed by the agency within a reasonable time. Any deficiencies must be

²⁶⁵ A complete list of State Agencies, Authorities, and Other Budget Entities subject to Article 15-A appears below in Appendix B.

identified and remedied. A contractor may apply for a full or partial waiver of the goals based on good faith efforts to meet them, and appeal any denial to the Director. Successful awardees must periodically report on their progress towards meeting the goals in their utilization plans.

Each contracting agency shall be responsible for monitoring State contracts under its jurisdiction, and periodically report to the Director activities to promote and increase participation by certified businesses with respect to State contracts and subcontracts.

Complaints that a contractor has violated Program provisions or that the agency has failed to issue a waiver are considered first by the Director. If that fails, the Director refers the matter, within thirty days of the receipt of the complaint, to the American Arbitration Association for proceedings in accordance with its rules.

In addition to overseeing certification and goal setting, the Division administers various business development initiatives. These include:

- The Pilot Bonding Program for certified MWBEs to facilitate their participation in the SBA Bond Guarantee program, including special technical assistance.
- The Capital Access Pilot Program, in collaboration with the New York Business Development Corporation, to provide capital in connection with a specific contract.
- The Transportation Capital Assistance Program for M/WBEs and small firms that have prime contracts or subcontracts with New York DOT. Loans range from \$20,000 to \$5000,000, at the prime interest rate.
- The Resource Referral Network of Technical Assistance Providers.
- Financial, technical and “green” industries initiatives.

The state finance law was recently amended to mandate that every agency, department and authority that has let more than \$10M in service and construction contracts in the prior fiscal year develop a Mentor-Protégé Program for small firms and M/WBEs. Section 147 further mandates that each agency, department or authority must develop a process to oversee and approve the agreement between the mentor and protégé. The chief executive officer of each agency, in consultation with the Division, must establish requirements for approval of contractors acting as mentor firms, requirements for protégé firms, and requirements for a process for establishing mentor-protégé agreements. Details of these steps are not outlined in the bill.

Article 15-A does not set overall, annual targets for State spending. Instead, agencies develop overall goals for their contracts, and adopt procedures to implement them, such as when the utilization plan is due, how to request waivers, etc. For example, the State University Construction Fund has adopted goals of 8% for MBEs and 4% for WBEs or 10% for MBEs and 4% for WBEs for projects located in the New York City and Long Island regions. The Dormitory Authority of the State of New York's (DASNY) statewide construction-related goals are 13% for MBEs and 7% for WBEs. DASNY has also adopted targeted programs for construction, commodities, construction-related professional services, the City University of New York, and

financial and professional services. It also provides technical assistance in addition to that provided by the Division.

B. Business Owner Interviews

To gather anecdotal evidence of the effectiveness of the Program in opening up opportunities for all firms, including M/WBEs, we interviewed 232 firms. We also explored owners' experiences with other race- and gender-conscious contracting programs, as a guide to future initiatives.

The following are summaries of the issues discussed. Quotations are indented, and are representative of the views expressed over the many sessions by many participants.

1. Program Eligibility, Participation and Services

a. Certification as a Minority- or Woman-Owned Business Enterprise

In general, minorities and women reported that race- and gender-conscious contracting measures are needed to ensure full and fair access to State contracts. Being certified created opportunities that otherwise would not have presented themselves. Affirmative action contracting programs were seen as vital to the continuing viability of their companies.

Once I got the certification, it has made a big difference. I can say the first job I got was through my certification, and that went pretty well. The second job didn't go too well, but it does get me in the window for jobs. I do receive a lot of bids. Since I'm in the minority circle, they have a listing, once you are on it, that people can go to see who's on that list. Now that I'm on that list, I receive probably nine bids a week through my fax machine and through my emails. It does help.

We proudly pronounce that we are a WBE New York State certified. In our industry...we try to team up with people because we're not quite large enough to be prime on a lot of things. There are a couple of different things: being a WBE gets us on the list, allows people with these enormous State contracts to go through and call and pinpoint who they need for what, and then call us and ask us to respond, which has been very positive, overall.

I got my certification about a year ago after one year in business, I got an MWBE. The process was very easy. The interview process was very easy. Since then, any state agency that contacts me has actually asked me if I'm an MWBE or a WBE.... A lot of times, when there are projects that come around, the architects actually call me and ask me to submit. So, I've been on a couple of proposals already for the VA, for some other state agencies we've gotten shortlisted, but again, I don't know how much of that really helps the team get the project because everybody has to meet those requirements.

Every agency is different. Like for instance, Albany Housing Authority, they specifically asked me upfront whether I was a WBE.

[The WBE certification is] a big advantage for us.

[B]eing certified and having the right price will get you the job every time.... So you have to know where the work is, what's going on, go after it, and if you believe in what you can do for them... And living in this area for a long time and doing business here, you know who, what companies are serious about using minority- and woman-owned businesses.

[T]hat they have that MBE goal helps them stay in that business and do other work. So, I think it just grows them into being able to do a larger volume of business because of that MBE program. Without that, they won't be able to sustain that either.

I think it's worth it in the sense that if you talk to a state agency, I mean, a particular agency that you're interested in talking to. If you say that, they'll actually talk to you.

[W]e wouldn't be here if it wasn't for the certification program.

More experienced M/WBEs advised firms to use the Program as a help, not a crutch.

I would like to just encourage people that the Program does work, but you're going to have to do your part to make that work for you also.

I think a lot of it is if somebody asks you to be on a team, you ask some very probing questions. One, are you going to find out if you're going to be shortlisted? Fine, you'll call me, and you follow up with phone calls. We can't sit back and say, "I'm a WBE; come hire me." We've got our own responsibility to really follow up and be just as prudent in our business practices as we would be in any other type of business without a WBE or MBE qualification. I don't think we can expect people to hand work to us. I think we can expect them to comply with the requirements, but I think we have to be very clear about what our requirements are if they want us on the team.

Other minorities and women, especially those outside the construction and design fields reported fewer, if any benefits, from being certified.

We have never gotten one account, not one State or government account, through the certification. I never have been solicited.

[W]e've been a well-known [WBE] for 35 years. I can't remember one job I got from being certified.... Oh, they love that we are certified, but the low bid wins the job. There's no question about it. If there's any differential, they say, "Nice try. We'd love to have you," but it's a dollar and cents thing.... No one's chasing us down and giving us business because we're woman-owned.

We are certified.... I've had no luck at all with getting business as a result. The Women's Business Enterprise part, as far as I know, I'm the only one that does what I do as a Women's Business Enterprise. I bring that up, and it's just like nothing, it just falls on deaf ears.

When I think back of the contracts that I have, I can honestly say I've won them through being the most competitive bid. I don't quite see the virtues of being certified.

I have one particular large agency that I've been trying to deal with for years. My having a WBE doesn't make any difference. That business went out by RFP years ago, and they awarded it to a New Jersey company, that's not New York State certified, obviously, they don't have any business in New York, except this. They have not put it out to RFP again, and any time you approach them and you offer up the fact that you're a WBE and the goals and experiences that we have in New York are much greater than that New Jersey company, the good old boy network hits. Then it's "No, it's a contract that they've been awarded that we're happy with and have been happy with for years." And so we cannot break that, and when I became a WBE, I had hope and some maybe unreasonable expectations that that was going to level the playing field for me, and it hasn't

Other participants' experiences were more mixed. Certification was sometimes a help, sometimes a hindrance.

For me, [certification] both [helps and hurts].... I don't per se advertise that's what I am, but that's usually one of the first things they ask me.

I guess I would have to agree with him whole-heartedly in terms of the MBE component in itself not being 100% an advantage.

I've got some of my jobs because I was certified.

[Being certified] just solidifies the [existing] relationship, and so in that sense it's helped us.

I think sometimes the WBE status does help us, but right now not at all, because the state is so strapped, the state agencies.... I'm always optimistic. So, for those two reasons, if there's even a chance, it was a long process and all that, but it was thorough and it was fair, I didn't have a problem with that.

Several firms, both M/WBEs and non-M/WBEs, expressed concerns about "front" firms, that is, enterprises that were not legitimately minority- or woman-owned, managed and controlled.

Another major supplier opened up a business with his wife, and now he's funneling all of his business through his wife's business.

We have no advantage or level playing field with two or three companies that we know of that are painting contracting companies that are just men that opened the company in their wives' names. We'll never be able to be competitive with them.

[N]o offense to any women in here, one of the biggest problems I'm having is companies out there are white-owned, and they take their wives and now the wives are certified.

[You] never see those women.

[I] do know some companies that I've never seen a woman. I work with them. And all of a sudden, they show up as a WBE. And, I've never seen a woman or worked with a woman. But, what happens is typically the wife does know a lot about the business, and they interview the woman, and she knows enough to pass that step. So, they'll say that they do, in fact, interview these people. But the reality of the situation is, they know a lot from listening to their husbands at the dinner table, but they don't really work in the business, or they're the secretary.

b. Access to information

Smaller and new firms found it very difficult to access information on upcoming opportunities or to contact the appropriate State personnel.

New York State [needs] a better means by which to alert people to what procurement opportunities are out there

I know that there are contracts out there, and I know that there are opportunities out there that aren't necessarily on the New York State Contract Report that are perfect for a firm like ours, but I don't know how to go about finding those particular things. As an example, I know that the New York State OGS has something called "[job order] contracts." I don't know where or how they are posted. There doesn't seem to be a lot of transparency with that. I'm getting conflicting information from the New York State DOT, OGS, and DEC about the limit that can be subcontracted, or that we can be a prime on, like the monetary limit.... I'm unclear if that's an agency thing, like each agency has its own threshold, and no one seems to be able to answer those questions for me.

I don't have a list [of buyers], I don't know whom to call, I'm going to have to start the process all over again. Very frustrating.

I literally spent two months [after becoming certified] going through every State agency and calling them to try and procure work from them.... WBE certified, who's your person? Yeah, thanks, goodbye. And I called and called and called. Finally, I get an email, "Thanks, if we need you, no problem."

I went to get a set of drawings [from OGS]. It was over a thousand dollars for a set of drawings. It's like, okay, I guess I won't pick up those drawings.

What I'd like to see happen is for us to get a list of companies that are actually submitting a bid so that we can go and ask them to be their sub.

[M]any of us here in this room have been awarded an OGS [schedule contract]. We're on schedule, but we don't get anything. Just because you got an award means absolutely nothing. You still have to solicit agencies. They are to give an approved list, and all they are is a list of telephone numbers, names of people and email addresses. It's about 9000 email addresses [of agency personnel] of which 1000 are no good.... But even when you reach out and call the group, they don't return your calls. It's almost like never even answer the phone. I've never seen any place that I call every day and no one ever answers

the phone. So I said, "They must be caller ID and they just delete it." So, it's a little bit frustrating because you don't really know how to [get] work.... We all do what we're supposed to do and we're just not getting an opportunity.

If they would just let us know who's running the job, even if it's within your State facilities, give us the names of the guy that's going to be the project manager. Give us the name of whoever in that agency is going to be running the construction management part of it. It doesn't have to theoretically be an outside contract management company, but if they have an internal group there. If I know that name, I will indeed send them out some information and then contact them right away and see if there is something I could do for them on that job.

Several participants mentioned that the State did not inform them of the outcome of their bids or proposals.

I don't know [the outcome of the award process]. The [buyer], I emailed him. I call him; he doesn't call me back, so I don't know.

We never got anything back as far as feedback, how we were rated.... Total lack of feedback.

Several M/WBEs reported that the Dormitory Authority's implementation of the Program was superior to most other agencies'. There was a general consensus that DASNY's program is mostly accessible, comprehensive and successful.

DASNY is very proactive. As far as State agencies, I think DASNY is the most proactive as far as MWBE.

DASNY was great to work for. They pay you like quick. Two weeks.

DASNY's done something recently where they deployed a group that monitors how a general contractor will pay the WBEs, the MWBEs. I think that's a great project that they've got going on. If they find that they are not paying, there's a number that you call. You will get a counselor assigned to you, and they track that person down and make that payment in a timely fashion. So, that's wonderful.

DASNY is an agency that will send me a letter stating, "The prime is such-and-such and you will get this amount of work from them. If you don't, please contact us," which the state doesn't do. But, DASNY's been very good at doing that.

We've done a lot of work with DASNY, and originally we were coming in as a WBE and as a subcontractor. We've recently within the last couple of years been awarded several contracts as prime, and we always have to put in a plan as to what we're going to do for WBE or MBE.

The transportation agencies were also mentioned as being easier to work with than some other agencies.

The Department of Transportation offers [bid information] online. It's easily accessible and it's easy to understand, navigate, and find out what you need to know as far as upcoming projects along with who was the low bidder. I now have a list of all the contractors requiring bidders and you can contact them specifically and directly that way. They list their name and their address and telephone number. But not through the New York State [OGS] website.

Niagara Frontier Transportation Authority...[will] give you documents for free or allow you to come in and look at them if you're a certified firm.

c. Supportive Services Programs

More supportive services were repeatedly cited as a critical need. There were several types of assistance discussed by participants.

First, many certified firms wanted follow-up on their experiences and progress from the Department of Economic Development ("DED"). There was the perception that once they were certified little help was offered to access State opportunities.

I've never had correspondence from [DED]. I have never had a phone call. I have had zero communication with them since I've been certified, and I'm not sure if I'm even going to bother because there's-- Where I'm standing from, there's absolutely no advantage.

When you become an MWBE in New York State or you become a DBE in New York State, there is nothing that you receive from either of those entities basically orienting you to how to actually move forward as an MWBE on State projects or a DBE on DOT projects. So, that is a big hole, and it is a hole that needs to be filled. There isn't, for example, anything that says, "Go look in the New York State Contract Reporter for job opportunities." The agencies don't do anything.

It would be nice if the Empire State Development did offer some service after they got us all certified. They kind of get you certified and send you out without a come-back-to place, for a little guidance, a little help, a couple introductions.

[W]hen I got certified with New York City, I was assigned this specific counselor, probably a social worker, probably had hundreds of other people. But whenever I had questions, she was there. If she couldn't answer it, she would send it out to other people. I got technical assistance that way, helped figuring out was my proposal in line, helped me walk through some of the bid things, because product is different than services, and you have to take different kinds of things into consideration, so they would help review, "Did you think about this, did you think about that?" So, that was really terrific.

To me the biggest key would be technical assistance, because for example this one we just bid on, there was a question about the threshold for a bid amount, and it was so close

to what our bid was going to be, so we want to know if that's a line you're drawing, because if it is, we want to make sure we come in a couple of nickels above or below that line, and we couldn't get anyone to even explain to it. We're like, "No, we understand non-compete and we're not allowed to talk to everybody. We're asking for an interpretation. That would be called technical assistance." In trying to explain it to us, they gave us like three citings for three different laws that were all nested within each other, and we never got an answer; we just guessed.... And we know it wasn't just us because three times they tried to answer that question to all the bidders, and we weren't the only ones that didn't get it. Then what happens is, when people start to get like that, you think you know what, they're not even going to entertain us. They already have somebody in their back pocket so they haven't thought out the whole thing. So, do we bother or not bother?

Answering an RFP, when you're doing it for the first time, it's very cumbersome, if you had somebody within the agency to be able to coach you the first time through, regardless to whether you win it or not. I'm talking about just get me through the process one time, and none of that has happened, none of it has happened.... There's no supportive services type of follow up or assistance.

What I'm not seeing is really the supportive efforts from any of these entities relative to that talk. And what I mean by that is the support and the outreach efforts that I think would be appropriate relative to embracing and bringing folks in to understand their contracting practices. You know, as a public entity, we would bring folks in and we'd say, this is how we do business. We'd walk them through the procurement and contracting process. We would reach out to them and, you know, try to learn and help them grow. We would do matchmaking sessions between primes and subs so that you would have an opportunity to talk to the bigger firms and figure out how best to place yourself. I'm not seeing anything like that in this area which kind of leads me to draw my own conclusions and that is, lot of talk, no action. How dedicated are these, you know, public entities, to really supporting the State initiatives?

Some large majority-owned prime contractors agreed that M/WBEs need supportive services to succeed.

I think once a minority contractor gets stated that they are a minority contractor for the State, there should be follow-ups... I think that once they get qualified they just kind of shoot them out there.... They need somebody to say, "How are you doing? Are you getting any jobs? Do you have any questions? Can we help you in anyway?" They should go back and try to find somebody that can help them whether it is a contractor or AGC or somebody that can help them. Maybe they don't know that those avenues are there. Somebody needs to be checking in on them.

It's just that the nature of life leaves people, you know, less opportunities than others. So, in an effort to get that this is our country's response to those less fortunate. So, it's great except for it doesn't work. So, they need technical abilities. They need to have people who are capable of business acumen. They need to have real, the real technical. Our [construction] business is technical.

Well, the program has been around for quite a long time. I don't remember exactly, but I'm sure it's been in for over 20 years, and you still have the same problems that at least I can see that they had 25 years ago, which is there is very little training or opportunities afforded minority companies as to the processes of business if they don't have it already on hand. That's the one thing that I've found with my mentoring of an MBE here locally is that the business process and things to understand and know.... [A]s simple as lending relationships, and if you don't have lending in construction, a relationship, you're not going to be in business. So, that kind of training. Understanding some basics on—It's one thing to build the job, but then understanding how the job is costed out. All of us are in the same kind of industry, and we all know what costs are, but that kind of training isn't always apparent in the beginning when you first enter. You know, you could build the seat, let's say for \$20, but do you know what it actually costs to build that seat and what the components are? That kind of simplified scenario is sometimes missed on the MBE side because of the lack of training on it. Those are the kinds of things I think they really need to focus on.

It really comes down to an education. We're trying to put somebody in position to do this wonderful scenario, and they have no education to understand the blocking and tackling. How do you do the basics? It's everything from creating a relationship with the bank for funding and financing, creating relationships with an accounting firm so that they can figure your cost out. If you can't physically do it yourself, you have an accounting firm. You have to have a legal firm. Even if it's on a subcontracted basis, you have to have a legal firm to make sure the mistakes you're making are not going to destroy you.... They've got to be able to have those kinds of classes in some of the SUNY branches. I mean this is only a suggestion because those kinds of people that are trying to get into this thing need that kind of information before they do it, not once they get the contract. Failure becomes the only option.

[W]hen somebody decides to go into business, they should haul somebody into a class like that and say, "Before you sign up and you want to become an LLC or a C corp or whatever you want to become, you have to take this little training."

Like it may be hard for them to do their payroll and their accounting and all those other things plus manage the work out in the field because the small business owners, typically they're the superintendent and they do everything else.... [I]t's hard for them to fill out a stack of paperwork when they're also out in the field all day. So, some sort of incubation process could help them out.

Many participants wanted an advocate in the agencies, in addition to the staff at DED.

Suppose all the agencies have an MWBE representative that is supposed to be lobbying for you. It's very hard to find that person, the MWBE office doesn't know who they are. It would be good to have them have a central bank in the office there, so that position is accessible to us from the MWBE office.

M/WBEs in many industries would welcome the opportunity to become prime vendors on State contracts. Qualifications, bonding, insurance and networks remain barriers with which they would welcome State assistance.

The question becomes how do we get out of that role and move up to be prime contractors? So, to me that's where State agencies could actually be a little bit more proactive.

Sessions to introduce M/WBEs to state buyers and prime vendors were repeatedly mentioned as necessary to access opportunities.

Matchmaker [sessions would be helpful]. Or just even what do you do? What do you need? Who would we call? When is your contract up? Just a little more communication with somebody.

I actually have been to all the different matchmakers. I don't know if anybody else has participated in any of those, but they're really, really worthwhile, I mean between meeting other people and other agency contacts. I did speak to someone from the Empire State Development, but I didn't actually follow through with her or anything. The other thing is that when you do meet them and you do follow up, a gentleman at OGS was very helpful to me.

They had one matchmaker event there, but just because it was under the heading of Empire State Development, so this is nice, after two years I can finally get some input or possibly a connection as to how they can help me.

It was really interesting, because they had all the purchasing agents there in separate rooms that you could go and call and introduce yourself and it was really, really hands-on. We've done SUNY every year.

It was a really big procurement—there were seven or eight qualified bidders. And we were invited to come and to go around and say, "I'd like to be on your proposal." And they could understand our skills, and some people said, "Even if we don't get this contract, I'm really glad I met you because I could use you on another contract."

There was overall support from M/WBEs for mentor-protégé programs, including awarding credit towards meeting contract goals for participation.

You have a majority firm training a minority- or woman-owned business that should satisfy the goals.

[Y]ou'll win and we'll win because number one you'll be helping to develop a relationship with a minority company that can actually help [the general contractor] meet the goals that [it's] supposed to be meeting.

I did find [participating in a mentor-protégé program to be] helpful. It's really, like anything, what you make of it. I mean these people are at my disposal. I can tap into them

at any time for a year. It was January, I started out last January, and I'm coming up on the end. I met with the president of a large company. It's not what we do, but he's a wealth of wisdom, and he's just a phone call away or an email away. Throughout the whole year, I could just ask him anything. And I'm sure it's a relationship that come December he's not going to say, "You can't call me anymore." I think one that will go on indefinitely.... I've turned to him several times just for wisdom, and say, "You know, I've got this contract issue. How would you handle it?" He's been a wealth of information that's just beyond my years. I mean he's been in business for 50 years, and I haven't, so why wouldn't I turn to him for advice? So, I would say a mentoring program like that where you have business executives here, whether they're in construction or something else, it could be an attorney who has a successful law firm. Why can't they provide advice, just business advice, sound business advice, and that could help us get to the next level?

A few WBEs objected to mentor-protégé initiatives because of the effect on M/WBEs that do not have a mentor.

That sounds like it'd knock the rest of us out of the loop who are small businesses trying to get bigger.

They'd be taking on their own small businesses by mentoring more. I don't know if that'd be advisable for something to be put in like that.

Several prime contractors reported that they informally mentor M/WBEs, and opined about why prior efforts had fallen short.

We used to have a program called the [...] at [...], our general building contractor, AGC chapter, which really tried to train and mentor young MWBE firms along with majority firms. I can't remember when that was. Twenty-five years ago, I think we did that. Basically, the program fell apart.... I think there's a simple reason for all of the failures. That is that we are in a tough business. There's a high failure rate even if you're third generation like I am in this business. That's the first simple fact.... The second and most important simple historical fact is the way successful contractor firms are created and sustained and make money and continue through multiple generations is by starting with an owner who has been through the trades. ... The pipeline problem. Unless you have that, you simply aren't going to get sustainable young people coming out of the trades and wanting to be in the business.

I know that DASNY has a mentor program. However, I don't think very many M and WBEs in this area know about it, and perhaps they don't necessarily do DASNY work.

It's a hard business... You have to be dedicated. Like us, we're seasonal, so we have to be totally dedicated for seven or eight months. We don't take vacations. We don't take holidays. We're in the office as owners and family members six or seven days a week for 10 to 12 hours a day. That's hard work, and unless you are ready to make that dedication, you are not going to make it, especially in New York. I think we try to make it look like, especially for the minority and the females, "We've got goals out there and you can make

this kind of money. Get in there. Get your State work.” Okay, so they do it. Well, now they’ve got to pay the prevailing wage rate, they have to have all this insurance.

I know a couple of minority friends of mine that have failed because they took on a whole bunch of work, weren’t really prepared, and then they failed. Once you fail, then you’ve got the problem with the banks. Try and go back then, and you’re out. ... [Y]ou hit a big thing there with too much work. The gentleman that I’m mentoring, he increased his sales from \$200,000 to \$1 million in one year. That’s a huge increase, and he did not realize that he didn’t have the infrastructure in place. He didn’t have the financing.

I think you need to start at the lower levels in helping them instead of dropping them right into State work. They need to start at the lower levels and help them get going that way, the grass roots. Getting them acclimated to doing paperwork and how to bid work and things like that. They need to get going just like everybody else. Probably everybody here started right at the ground. Then after a certain amount of years broke into State work. That’s how we did it with our very first business. For years, we did parking lots and driveways. Then all of a sudden we started doing a little sub work for contractors for the State. We got the feel of that. Then we started bidding our work. But, it took 25 to 30 years before we could do that. We probably could have gone earlier if we’d decided we wanted to. That’s what you’ve got to do. You’ve got to start them at the ground. They can’t pay the prevailing wage rate. They can’t just open up their doors and say, “Okay, here we are,” and go out and pay prevailing wage rates and insurance. They can’t afford all that.... I think that [providing services for firms that weren’t working on State projects to help them get going] would be a great idea. I don’t know what the solution is, but that’s how they need to start.

We mentor a lot of smaller contractors. A lot of minority contractors we do. A lot of them need to be paid before we get paid. We do that if we can afford it. We get a couple of calls a month that somebody needs some money. We try very hard to make sure that they get their money. Paperwork, I lots of times help them with their paperwork. I’ll go right to their office if they are close enough and sit down with them, get their programs started that they need for DOT... [W]e really do need to have some way to give them some of that technical training... It’s almost like they need a mother figure. If they get in a jam they can just get on the phone and call, “I’ve got this problem. I need to do this.” Or, “I’ve got this form and I don’t know how to do it. I don’t know if I should sign here or what I should do.”

My company is involved with a protégé program right now; however it’s very small.... [W]e have our own program, just a company program and we’ve partnered actually with other executive-level staff from other companies in the area. We match two executive-level staff to one protégé. But we only have four protégés.... It’s a start, and they get a lot of one-on-one attention. They get years of experience at their beck and call basically. It’s very informal whereas we don’t have a course that goes with it. They just go and meet with those people and they talk about whatever they want. It’s been well-received. We’ve been asked to expand it, but to have a program like that, I think the protégés from what I understand got a lot out of it. But, to get those type of people, a lot of them to commit that level of time is somewhat difficult.... Two of them are not union, so it’s hard

for us to give them work. But, what has been happening is that the executive-level mentors that are involved have been talking to—even though it's not their own protégé, they may talk to another protégé about other work that they're doing. So, it's basically building those relationships that they wouldn't necessarily have a chance to do otherwise. I think it's very difficult. I hear it on almost a weekly basis that the firms that I work with, that they're trying to get work either from us or as working with one of our primes or even on another job. The biggest obstacle is just trying to get their foot in the door because a lot of times, those primes already have their established M and WBEs that they work with and they don't necessarily see a reason why they should go other ways.

Sometimes we know a sub is having trouble, they're a small firm, they need the paycheck because they have to pay their salaries. Sometimes we'll expedite one of those and take the risk of not getting paid. By paying before paid, the big firm basically takes the risk of maybe not getting paid.

We're actually training, helping out another smaller paving company right now because of all the paperwork we do, like I was telling you, the cost of the asphalt is so high, unless the sub is providing some of that asphalt, we really can't meet these goals. So, we actually pave, but we're hiring this company to pave certain portions of our work.

[Outside of a formal mentor-protégé program] I think sometimes they don't know that they can use [the contractors organizations], that they can call another contractor. They don't feel comfortable enough to call and ask these questions. I think that's what we need to get out to them. "Don't be afraid to call somebody and ask." We as a contractor are always using our competitors. We go back and forth all the time. We bid against each other every single day of the week, but at the same time when we've got a problem, we can call them up and ask for help with anything. A piece of equipment or a job we're bidding. It just goes hand in hand and I think sometimes they don't understand that. They don't know that they can call and get advice.

Several prime contractors supported a formal mentor-protégé program

But I think if you blended it into the business model where you said, "Okay, if you bring in a disadvantaged business, we're going to give you a leg up." Instead of giving them the leg up, give us the leg up. We can take our business skills. Give us an incentive to do it.

We'll train them through a scope, all right. If they want to be a framer, we'll put them on and we'll train them, you're going to be a framer. That just creates another sub for us.

Some large general contractors thought the State should help to support organizations for M/WBEs.

If it were State funded, whatever it was, where they were able to be organized and where they didn't have a lot of overhead.

That's a very good idea, because wouldn't be so intimidated because they are all in the same boat. I just said that might be a very good idea because they're all in the same boat.

They won't be intimidated because of the big contractors. They are all in this together, all trying to get ahead.

Many M/WBEs mentioned obtaining surety bonds as a major impediment to obtaining work as prime contractors.

The biggest problem we find is getting bonding.

[T]he State [should] have a program to ensure or give better access to the bonding and banking for each individual company.

Large majority-owned prime contractors echoed the fact that bonding, insurance and access to capital are barriers to their utilizing M/WBE subcontractors.

[P]rovide some kind of bonding capacity to these firms so that they can walk in and work with us.... They can come to work for us, and we don't have to worry about suffering a loss. I just completed a project that I went through three of the same trade, and it was a minority contractor, three of them went belly up during a job, and three of them were halfway decent companies, and three of them all had different pricing structures.... They are not good financial managers. And, they don't have at risk what our firms have at risk.

I'm willing to work with them and help them, but I don't want the responsibility of their finances, just like no one wants the responsibility of our companies.

If I ask a guy if he can get a bond and he says no, what's the probability that he can finance and perform his job? It's not good. Let's say it's not. But he can't, you know, so if he says yes and I ask him who the bonding company is, as long as it's not Cayman Islands Special Bonding Company or something it's probably okay. But the idea is that that's a litmus test for financial responsibility. So, those are the issues. There's financial responsibility. There has to be some basis upon if you walk away there's a penalty. Not if you walk away, I get to clean up your mess. Which is basically the way it is.

[W]hy can't the government do some type of loan program or guarantee a certain percent of the loan to a bank?

Some M/WBEs recounted that staff at DED had been helpful in providing information about access to bonding.

2. Contract administration

a. Contract specifications

Contract size was a recurring barrier to the participation by M/WBEs and small non-certified firms.

[W]e have our difficulty and our challenges to take the next step from being a [WBE] subcontractor most of the time, to trying to get some prime contracts from some of these

other State agencies. We have a contract right now with the New York State [agency]. We've held that contract for a number of years. The thing is, though, is that the next contract, which is the one that allows you to use your brain, the minimum requirement was that you had to have gross revenues of \$25 million a year averaged out over three years. So, that takes it from being a small business to being a large business, but there are no stepping-stones in between to help you through that process.

[I]t doesn't seem that there's a space for small to mid-size firms.

The one thing they can do, which they've never done (and I've discussed this at many different public agency levels) is de-bundling these contracts that they let out because the smaller contractor, minority woman owned contractor usually cannot take a big chunk. You generally can float the bonding. I couldn't take a whole big government project that I could actually do over a two-year period. The bonding was a little above what I had. I think what de-bundling some of these contracts would do for many of the smaller woman and minority owned companies is you'd be more competitive bidding on a piece of the pie as opposed to trying to bid what your trade does and then three of your friends to try to get that job. When you have three people bidding that same job everyone wants their profit in there, and it gets out of reach. If they de-bundle the project, and just give me the metal. Don't give me the stone and the wood, even if I can do it. I can't handle all of it. Just give me this part. This is something that I've discussed at many levels and the big companies, the government agencies when they want to do a big project—the State, the city, the federal—they bundle these things so big, some of these portions, that only a handful of contractors can take that portion.

Yes, unbundle it. Don't give it just to one consulting firm.

We're on Contract Reporter, we see all the RFPs that are coming out, and rarely do we chase after any because most of them are either too overwhelming or to write the proposal would take [too long for uncertain outcomes].

[T]hey need to start putting out smaller contracts that are specifically geared to those businesses. They have a whole list of MWBEs in New York State and all the primes call them, but what I'm hearing across the board, is that not everyone needs to be a subcontractor. Like if there's a big engineering contract through OGS for a specific job, they can take a piece of that and put it specifically toward-- so instead of using the primes and their good faith efforts to increase participation, they should just do it themselves.... OGS, DASNY, I mean they have these huge, huge projects. They don't have to be that huge. Each project can be broken down, and they have these huge contracts that are either state or region wide. They don't need to be that big. They can be broken down a little bit more, and you'll get a better quality of work at the end of the day when there aren't 25 hoops to jump through in order to get there in the first place. If they really want to facilitate some direct competition and encourage the growth of WBEs and MWBEs, then someone needs to take charge.

Some owners felt that the State has a mindset that bigger is better and more qualified.

[T]he program is defined the mindset is that all these big projects have to go to a big consulting business, or to big firms, and that small firms only can come as a sub.... [T]here are a lot of small businesses that can do the work as well as a large business. The mindset is that only a major Fortune 500 company can do it but if you really look at it, the actual work is only being done by five people in an office in Buffalo or in Albany.

Sometimes too people have the idea that if they hire a big firm it's like CYA, cover yourself.... They could have paid five times more, they could have screwed up. But, it just is the CYA attitude of, I went with the biggest company and I went with somebody that's been around for 30 years so if it gets screwed up, you know, it's not on me.

So you try as hard as you can to show that you can perform but if you got somebody coming in from a well established company that's fifty, sixty years old and they can come in with twenty brand new trucks, they're going to look at the shine compared to you and they really would rather keep the shine than give you the opportunity. Even if you've proven through many years to be able to perform ...they'd still rather have the shine. That's why I was wondering with these programs and that, as far as financing, we can do financing, but I just told you the price of one truck. But, you know, interest on that. Now try to establish yourself, make payroll and support yourself and go farther with that kind of overhead expense. It's really hard to grow.

There was significant support for a small business setaside or target market, that would restrict bidding to small, New York-based firms.

[I]t would be nice to see them do an incentive for small business.

Small business is the way.

New Jersey has a great, like, small business SB program. And then they do like certain setaside SBE setaside projects that pull it in for small businesses.

b. Meeting M/WBE goals

The goal setting process and meeting contract goals elicited many comments.

i. Solicitation of M/WBEs

Many M/WBEs believed that compliance with Program requirements was inadequate.

I don't see the enforcement side of it. You have this Program for MWBEs, we all got certified, but I'm trying to understand, outside of the general contractors that appear, they have to be pressed hard enough, and you stay on them,

It certainly is a virtue of having [a Program], but it's got to be more focused as to what it is the Program is about, and how it's going to be enforced, and who's going to be keeping track of these statistics.

I have not seen anybody policing this, to make sure these numbers are met.

[I]f you're going to run the program you need to stand behind it. You need to support it. You need to be able to have consequences in place should the goals not be met.

[T]he State does an absolute lousy job in actually monitoring.

[T]hey just don't have the manpower, there's no need putting speed limit on a road that you're never going to put a police officer on.

They put forth a lot of goals. I don't think there's a lot of push for compliance. I think it's a lot of lip service as opposed to reality. And no penalty for not complying. There's more forgiveness I think. Oh, you tried. I don't know how hard you tried but I guess you tried. And that's enough. So I think it's hard to, they need to reinforce that if there's goals they have to be achieved.

That there should be more enforcement of these percentages or these requirements, and that all the agencies should be held to a certain standard.... Why I can get in the door with one, and not another? Are they getting all of their needs met with some other MWBE? Oftentimes not. Oftentimes the old boy network is in place. In that particular agency, there's no enforcement.

Many M/WBEs doubted that prime vendors had real commitment to inclusion.

I think that the contractors go through the motions of saying they're finding or looking for the subcontractors to facilitate achievement on their projects, but I think, like I said, I think it's more talk.

I've got a company that's here too, sent four, five, six things a week from them. And I've been over to see them. I can't comply with anything because what I supply goes to their sub. That won't count for the DOT but I get untold amounts of paperwork. I've started shredding them. I get so much from them. And yet I know they know I can't comply but that meets their goal for solicitation.

Whatever the failings of the implementation of the goal setting process, most M/WBEs believed goals were essential to creating opportunities for them to participate on State contracts.

Being a smaller company there's no way they would have dealt with me, would have took a chance on me. A half million dollar to a million dollar job, there's no way they. I'm one now just shy of a million and if it wasn't for the goals there's no way I'd be there. They'd give a friend work, you know.... if it wasn't for the goals, these big projects, there's no way I could get on them.... [On the other hand], if you knock on doors, you put out a good service, put out a good product, and you put together a resume that you can take around...[t]hen they might take a chance.

M/WBEs who were fortunate enough to obtain prime contracts stated that they should be allowed to count their self-performance towards the goal for which they qualify, as in the USDOT's Disadvantaged Business Enterprise Program

I was not allowed to use myself as meeting the goals. So, I had to go out and get another woman-owned business enterprise, which to me defeats the whole purpose of this program.

[O]ne of the main issues that we had with our company, where we weren't allowed to use our own work as part of the utilization goals of that program.

ii. Good Faith Efforts to Meet Goals

Many prime vendors expressed frustration with the capabilities of certified firms and the overall process of meeting goals. Concerns were repeatedly raised about the lack of qualifications of M/WBEs.

The good minority- and women-owned firms are good companies. They are very few and far between.

To get a project, you have to present the best team for the project. It has to be distinctive; it has to be highly qualified to get the project. MWBE goals very often don't fit with that...[b]ecause you can't get the right people.

If I do want the work, I hire them and I figure out a way to work through it.... I do more of their work than I should.

[T]hat it's never the case that you can't [meet goals]. You can always do it. The problem is, are you meeting it in a meaningful way? Is it helping your team, is it getting the job done better than it would have been done otherwise? I hate to say it but more often than not, that it's probably not the case.

What's happening that I see and is something that needs to be addressed is first either MBE or WBE firms are going as primes, in which case they're not available, giving them an advantage over the remaining firms, or they're going exclusive on teams and whatever team they go exclusive on when you start putting your team together, you're locked out. You have very few options to pick to meet the goals.

[Y]ou've got this balance between putting the most experienced, well integrated team together, people who work together and who accomplish similar projects together [and meeting the goals].

We meet them, but we meet them marginally. We don't meet them in the meaningful way.... [T]he State basically is reckless in its regulations and makes us do things that are difficult to achieve. But, we find a way to achieve them, which probably ends up costing the State because I'm spending \$150,000 to get \$40,000 worth of work. Great deal.

We carve out the project into niches that we know minority businesses are capable of doing. A lot of times it's surveys, a very easy task, and you know that it's going to be a sizeable amount of the project so that you can pretty much assure yourself you're going to meet the goal with the survey and then on the other end, construction inspection is another easy area to meet the goal, because that's a yearlong project. You can easily fit in someone into that. It gets kind of gray on other parts.

Do I want to put an MBE cost estimator on this project or do I want to go with a proven guy with a track record from [a local firm] that we all know that when they see it they just check it off?... It's never an afterthought, but it's the last paragraph I write in the proposal.

[S]urveying, inspection, come right to the top, geo-tech. It's when I think you get outside a transportation project that it becomes harder to find a quality firm to team up with that brings a specialty that you don't have in-house.

[I]t's basically just taking the job away from your own firm and give it to somebody else, that's really the plainest way to do it. It creates issues. But, again, I keep wanting to come back to I know what we're trying to achieve and how we can achieve it better.

Most jobs where we've been involved on DASNY work or State University Construction work or even the city of Albany work that had goals, we made all the good-faith efforts and beyond, and still were not able to reach the goals. Some of those entities asked for waivers, some didn't, and just asked for a utilization plan and good-faith efforts and so, "Okay, that's good enough." But the frustrating thing from our end...is that no matter what our efforts are to solicit, there aren't entities out there that are doing big enough work, subcontracted work, where we can take a good chunk and go towards the goal. We do all the advertising, we do all the contacting, we do all the soliciting electronically, phone, every which way, and on that day of the bid there aren't bids. We don't get them or we get them from someone who is not certified.

[I]f we're providing the service to you and the best quality that we can get, why should we [seek out minority or women-owned firms] if either I can do it or maybe [a white male's] the best qualified?

[M]any of these minority firms have found themselves stressed by the amount of work they've had.... the work product suffers, okay, and then, you know, we as prime consultants, the competition we face is fierce, you know, to win a job, to do a job, to keep a client happy and that type of thing. And so, yes, many of us are eating costs that, our cost to frankly fix up our subconsultant's work.

I have to utilize these people, they're going over budget, they're not technically proficient. As a prime, I'm responsible for all of it. So, I've got to go back and clean up the work.

There simply aren't enough firms out there that can stay in business and sustain business. That's why I go back to the trades. When my grandfather got into the business, he was a

carpenter. That's how most general contractors got into the business: they worked up through the trades. I think unless we see the union trades increase their minority membership, especially in upstate, you're just not going to get that growth.

[W]e went to the State list and the preponderance of these contractors, these minority contractors, were brokers, who basically just could not estimate. And one of them actually, I had heard, I don't know if this is actually true, but he said to me that the State had helped him in some way or DASNY had helped him in some way to do a quantity and a material takeoff so that they could actually price the work. So, there's one place that they need help is in defining what the work is and reading plans and specifications so a high level of technology would need to be associated with [the project].... This one fella showed up at my office in the nicest car in the nicest suit and tie to talk about concrete. And the nature of my conversation with him was technical. I'm a civil engineer by training and education and I've been in the contracting business virtually my entire life. And, he virtually knew nothing about the nature of how to deal with this.... I found it to be, I'd like to hire you but I might as well just hang myself now because I'll be ripping out the foundations that you're going to be putting in. So, that's the reason honestly that I really had a problem with that. Of course, what it turned out to be in a private conversation with this fellow over the phone with just me and him I said, well, you know, maybe what I could do is to have you hire this guy and have you have a fee for me achieving this goal. He says, now you're talking, now you're talking. In other words, that was the intent, always. It was never an intent to self perform. It was never an intent to be personally responsible for the work. So, I guess that's my point. We made a genuine effort and want to continue to make a genuine effort because I really believe in this stuff.

Some prime contractors reported using brokers to meet the goals.

Eight percent, if you tack on eight percent [the M/WBE broker] get you whatever you need.

We don't normally subcontract anything out, but when we have to meet it on the materials side of things, we all have our favorite people that we know that will pay the bills and perform. They're not necessarily specially in some of the disciplines that we do because we do basically carpentry throughout the building. Some of those disciplines don't have a minority that we know of that's local to deal with, so we run them through the same person that we trust. Even though they don't know much about it, we kind of hand-feed them all the information and say, "This is what we want to buy. Here's our purchase order to you. Could you purchase this for us?"

We're in the same situation that he's in, to go that route to have to meet some of those goals. ... [I]t just increases the price of the project. It doesn't do anything for anybody. I don't see the value in it.

As a material supplier, we're supplying a lot of materials through minority companies and mark it up 3, 4, 5%, whatever.... So, if we have a problem, we do ask for a guarantee from the prime, and basically we make the sale, we just send the bills to the minority company who then mark them up x amount to the prime contract.

[Using brokers] feels bad because you're trying to do good. And what you end up doing is, is actually provide a subversion to what the program should be.... It's not achieving anything but a public display of efforts with no substance.... It falls to the nature of having a capitalist system that has disadvantaged certain people over the years. You need a lot more technical people from minority backgrounds.... [T]hat's the issue with why we're still not there yet. Is because that educational aspect has not kept up with the goals. You can have an opportunity to fall on your face but you can't have an opportunity to succeed. There's a difference.

The availability of White women was contrasted with that for Blacks and Hispanics.

Now, [White] women are a different story. There tends to be a few more women. But even women in engineering is very, very sparse. It just, I mean, well you know about it. It's called, they're not choosing those type of careers.

Several prime contractors stated that they received little assistance from the agencies in trying to meet the goals, which were often perceived as arbitrary.

The people that make the goals don't know the business that the goals are for.

Thruway, DOT, they have standard goals. What they will do is they will put the standard goals in the job, and the burden is on the contractor to come and say, "Well, I can't meet the goal because you're requiring us to do whatever, and there are not MWBE subcontractors for that work."

You ask somebody in Albany to train you in forms, policies, procedures, and you get no response.

You get no support to meet the goals.

There's too much expectation from the agencies that the general contractor will do this vetting process. You want to know, if you're subcontracting glass, can this person install three quarter inch solar panels, or whatever it is. Not just that they're a glazer. You need to know more about the actual work they know how to do. Because that way you will actually be able to get the companies that you know you can rely on. I think it would go a long way in helping the contractors meet the goals if they made it easier to go through and find out, I need somebody who is going to do this kind of fencing, that kind of landscaping, or whatever it may be, not just fencing and landscaping.... You have a limited period of time within which you're trying to solicit these firms to do this particular kind of work. We send out thousands—we solicit by fax, by mail. It's a tremendous investment of time and effort on the part of the general contractor that is not sufficiently targeted towards the community that we need to get to. We send out thousands of solicitations on a single contract, and the responses we get back, we get back typically less than 100 responses on a solicitation of 1000. We're...not going to meet the goal, because the goals are artificially set because we have a 30% self-performance requirement on many of these contracts. We have a specialty equipment and specialty materials that are either specified in the contract, or work for which there is

no minority firm that is doing it.... I think the trouble starts because the recipient agencies are not doing what they're supposed to be doing with respect to the firms, with respect to setting the goal and with respect to certifying the firms. They put all of the risk and responsibility on the prime contractor in that respect.

Enforcing something without helping, it's just like let's add more law enforcement instead of training people how to be law-abiding citizens.

They don't have any training. One of the case workers, I asked her, "What did you do before you worked here?" She said, "I was a telephone operator in Queens, New York."

I would appreciate if they had someone who would help you. "Hey, I'm having a hard time with this." Instead of saying, "We don't care, just get the numbers." Say, "Hey, what do you got?" Let's see. Maybe there are some people that I don't know about that are out there. I can look at a list, like everybody says, but, "Maybe in the past this has worked," or something like that. That's all I would ask for, and you don't even get that. That's what aggravates me. I understand the goals. I've never even asked for a waiver. But, it isn't easy, and I certainly think it would work better if there was more of a relationship of trying to make it work.

To say send in whatever you have, and then say no, when somebody could have helped you [is unfair].

[If you complain about the lack of support, y]ou get a checkmark the next year next to your company name.... They'll lose your bid when it comes in.

[Y]our best opportunity to increase MWDBE participation is during the buyout phase for the contract. Once you've bought out the subcontracts, but for change orders, there is very little opportunity to give work for MWDBE firms, so you're going to have the best opportunity to increase participation at that point. Pretty much, what you go in with is what you're going to come out with. They should know that at the beginning of the job when you submit your plan. So, then when you're continuing performance, and you're submitting the reports, and they come back to you and they say, "You're 3% below the goal. What additional things have you done this month to increase your participation on this project?" And they come back and you say, "We were looking for work that we can give to them." But at that point, the type of work that we do, there isn't any. To me, it seems as if it's like going through the motions, between the agency and the contractor. I've had contracting officers and compliance representatives say to me, "We know you're not going to meet the goals on this project." So, then why set them at that rate?

I think the good-faith effort issue needs to be more realistic in recognizing the construction market. One of the most frustrating things for a contractor that's based in New York City, and you're sitting there with the agency about your good-faith effort, and they say, "Well you know what, there is a paving contractor up in Niagara Falls who is a MBE. Get a price from them for the job." That's not practical. We need to recognize when the good-faith effort, some reasonable geographic realm. Also, the big part, a lot of the fault with the Program is on the agencies, because the agencies don't do a thorough

enough screening of the registered MBEs. It's all a financial process, and when I say MBE, I mean MDBE, MWBE, there's very little attention paid to what the actual work that the company does. You'll have 3,000 registered electricians, for example, DMWBEs, there may only be a dozen of them that know how to do MTA signal work. So, don't tell me that my good-faith effort includes those 3,000 people when 95% of them cannot do signal work, don't have the expertise to do signal work, don't have the certifications to do signal work.

[I]t's not that they don't want to deal with minority and woman owned businesses. It's, [as a WBE] I know a lot of them and I have had some very personal conversations. Most of them really don't have an issue *per se*. I think that the Program works well in opening their eyes and allowing them to explore different avenues and different people to chose from to offer opportunities to. I think where they get frustrated is the State's "I'm going to stick this up your rear end" attitude. Which creates an adversarial role between the minority subcontractors and suppliers and the prime.

A few others recounted that the agency had been helpful.

They were very helpful on the phone. My first time through it, she walked me through the website, told me how to look for the vendors.

The low bid system for construction contracts made it especially hard to meet goals.

[W]hen you are construction manager at risk you have the opportunity to find the scopes of work. You can split up scopes of work to be more attuned to smaller minority firms whereas when you are a bidding general contractor you're really relying on what the phone calls, the faxes and the emails are for their scopes of work. If you are trying to compare apples to apples quickly in that 20 minutes that I'm in now, we don't have-- Because we're not construction manager at risk and we're not defining the scopes of work the bid packages, we don't have that control. We have to take what's given to us and try comparing apples to apples. You have much less window of time to do that evaluation and to do that, what we call buy-out. I really disagree with you. I think construction manager at risk is a much better way to go if you are going to try and meet those goals.

Differing approaches to goal setting and review of good faith efforts between State agencies creates confusion and uncertainty.

What we deal with dealing with all these different agencies—State University Construction Fund, DASNY—is nobody talks to the other one. They all have little differences. They should consolidate and make all the rules the same.

Bidders or proposers that failed to meet the goals sometimes sought waivers, but more often submitted and tried to attain the goals during contract performance.

If you get close, you just submit it. We then continue our process all through the job. Whether it is construction signs or maintenance, things like barrels or cones or something

like that we'll try to get from a minority contractor to add to that goal. So, it's an ongoing thing through the process of the whole job. Our obligations for bidding as a general contractor is we've got to put up a bond. We have virtually no choice but to use the lowest numbers that we have on the day of the bid from subcontractors or we're not going to get the job, and we're just wasting our time. When we don't get much in the way of MWBE numbers that day, or we can't identify them, we end up being the low bidder, there's not much place to go. Occasionally we can allow a second bite of the apple if somebody else comes out of the woodwork late or something like that. It's very difficult and very frustrating.

You can come up with a DBE plan. Again, maybe it's 50% BS, but by the time you start working on the job a month later, you can resubmit a second one with your actual plan, and I've never had a problem with that.... If you...submit a revised one with actuals and you don't make the goal, then that's a problem.

In the case of DASNY, whose compliance people are very thorough, you probably, in that specific situation, if the numbers were in that area [of being close to the goal], you probably would submit a waiver and probably succeed on getting it, in that case.

Design firm owners and representatives were often unaware that they could seek waivers of goals if they made good faith efforts to meet them.

[W]e've never ever seen [information on seeking a waiver], and [the State] won't do it. No one's going to do that.

I don't know that I've ever heard anybody [request a waiver], not in our business, because it's so competitive.

I don't know if I've ever heard of a waiver before.

There is no waivers, really. I've never seen a waiver.

I don't think we would submit a plan that didn't meet the goal because we know it would just be wadded up and thrown back at you.

This waiver thing, I've never heard of it and I've never heard it being accepted. Eyes would bug open if you said, "I want a waiver from the MBE, DBE participation."

Others had sought waivers unsuccessfully.

No [the State does not grant waivers], not to my knowledge. The only thing we can do is document, document, document what we're doing, trying to solicit these companies.... DEP does not respond to the letters, and MTA does not respond to the letters, or the response is, "We reject your waiver, and continue to make good-faith efforts."

[T]hey don't respond to the [waiver request] letter at all. They don't even say, "We're not granting you a waiver," many times. They just don't respond to the letter.

Some bidders had received waivers.

I've done several waivers, and the only thing about waivers is you got to do it early.... So, you literally have to get the plans, look at the job, and write a letter, bing, bong, bing, and most general contractors don't do that. So, there is a procedure there, but then it's like watch out if you're going to use it, because, "Oh, that company? They created a waiver problem for us before."

I've submitted plans that don't meet the goal and we try to put our good faith effort in, and we'd get the phone call and stuff like that.... In most cases, we try to explain ourselves... And [the DOT] don't know anybody [we can use], and then the plan is approved.

Yeah, it's been very difficult for us to fulfill our goals.... We've made extraordinary efforts to try and meet the goals in many different ways. Going through both with the resources the State offered plus advertising in the paper as everyone recommends, going through. Because we're a fairly specialized trade. You have to have a skill set or bring something to the table. And that has been, we've basically had a waiver every time.... It hasn't been fun [getting waivers].

[O]f course [they gave us the waiver]. We were not disingenuous about it. We showed them all the paper. We had all the documentation. We had three or four firms. Another firm who I did business with for 20 years, sure enough, gets a major job and he says now and your job is smaller, it's WBE firm. You know, I can do yours or I can do this and by the way, his is three times as big as yours. Yea, but you gave me this number. You got to perform at this number. He says, you know how big my firm is. I can't do it. So I said, you're right. I'd rather not have him because he can't perform anyway. And sure enough, I have to give it to a non-MBE/WBE firm.... But I don't like the idea that I couldn't meet the goal. It's great that I could get out of it but that's not the point, is it?

In any event, firms would be taking a competitive risk in not meeting the goals on negotiated procurements.

[W]e need to hit every requirement on the head, to get our best opportunity. And that the perception and clearly the message from government is, "You are going to hit these goals."

There's points assigned to whether you have the MBE or WBE or DBE on your team. So, you could already be at a disadvantage of up to, some of them I've seen lately are five or six points. Where you could lose five or six points, just because you didn't put this person on your team.

We were afraid to waiver that because then they could disqualify us.

If you waiver it, then we're more than likely not even going to have a shot at getting the job.

I'm not stupid enough to go into a job without them. Because I know I'm not going to get selected.... [T]he program trumps qualifications.

My intuition tells me if you were in a proposal process going in to the client, requesting a waiver, you would automatically be a loser. That's my gut feeling.

DASNY will get 30 firms submitting on a project, so if five of the firms can meet the goal and the other 25 can maybe meet the goal but they're making compromises on their teams instead of submitting for a waiver, those 25 firms don't stand a chance.

Some design owners felt that meeting goals should not be part of the selection process, but rather negotiated with the successful proposer after selection.

I don't think it should be used in the selection process.... The selection should be the qualifications. If they want to make [compliance] a part of the contract requirements, that during the project you try to strive for these goals, that's different than putting it into the selection process.... Take that part out of it, and it would enhance the process for the State or the agency hiring you because they're going to get a better team.

You'd be better off making it part of the contract negotiation, take it out of the selection [process].

A few prime vendors suggested that the program be eliminated and replaced with efforts focused solely on increasing the quality of M/WBEs, without reference to goals or actual utilization.

I think the entire Program as it stands right now should be abandoned. It should be terminated immediately. And, all the resources that are now put into that Program, should be put into a program that works directly with the minority firms to bring them to a level of being qualified and help them with their marketing. In other words, put the effort into the growth of the minority firms themselves, not a program of percentages and numbers and all that stuff.

[The Program] gives them an opportunity, but it doesn't help them learn how to take advantage of those opportunities better.... [M]ost of them need help in areas like [marketing].... [E]ven the ones that have been out there a long time don't have all the skills they need, and I think the effort should be given in that area more than analyzing numbers.

There was much support from design firms for refocusing the program on a firm's employment of minorities and women rather than developing business ownership.

[C]ertain individuals who may own a firm who fit that classification, they are always the firm to be hired for certain parts of the work, regardless of what their employment makeup is.... All you have to do is fit that classification for ownership of a business and it doesn't matter, essentially, who you're hiring.

I don't think you can, you know, be a minority [owned firm] and hire all white people and consider yourself [a MBE]. Your goal, their goal should be to hire other minorities, a certain percentage at least. Or make us hire a certain percentage to do the work. I mean, I would have less problem with that. Assuming we can get qualified employees. That, to me, would seem like a much better goal.... [T]he problem in my mind [is that the objective is not employment but to create business owners].

[T]he Program doesn't work to create minority and woman owned professional services firms. It doesn't work. It's not logical. It's not a rational business creation methodology. The way that you create a professional service business is you train professionals in the educational system, they go through some kind of a mentoring or internship program to learn the craft and learn the trade. They become licensed and then they choose as an entrepreneur to create a business or they don't.... The lack of usual subcontracting opportunities for projects [run by large design firms is] why I suggested that the workforce model makes more sense. Because [a large firm] has two thousand employees and they're responding, they can do everything for that project. They've got their own engineering, their own architecture, or planning, whatever the task is and obviously they'd prefer to not subcontract because there's management issues, there's control issues, there's responsibility issues, there's liability issues by hiring other sub professionals.

Some non-M/WBEs stated that many certified firms no longer suffer any competitive disadvantage.

[M/WBEs who reported that they still experience discrimination are] wrong.... The larger MWBEs would have the opportunity based on their qualifications and their staffing and their work history.... [R]evamp the Program, so it's targeted at younger firms who really need the opportunity.

If [the non-local MBE's] qualifications are there and they've accomplished that kind of status, a portfolio of work, then I will know them [so there is no need for the Program].

Some of the firms that are certified and listed are the firms that are already successful, and they are taking up the workspace for those who are trying to grow. They've been on the certified list for 30 years and they're working on their third generation.

[T]here are several of these companies around that are doing \$15 to \$20 million of work that should not be in the Program that are taking the place of legitimate people that could and should be in the Program to do the kind of work that we want to subcontract out but we can't find because they can't get in the program. They can't get in the Program because contractors are finding it easy...easier to fill a goal by hiring this guy to do a million dollars' worth of work. They're taking the place of legitimate potential MWBEs. Besides that, they just shouldn't be in the Program at all anyway.

I'm not sure of how the whole DMWBE originated but I think the MBE part of it has probably reached its goals. The firms that we're competing against as primes are multimillion dollar firms and they're going in there competing as also a minority firm as

well. And they've gotten their experience through, as a minority over the years and they've grown to basically outgrow a regular firm like ourselves where now they have more experience than we do and now we're competing against them as primes on major contracts as well as having to use them as a MBE on, as a subcontractor so now, and we're losing now. Because now they're growing so rapidly and they're so big, it's very competitive.... I just recently lost a bid on a \$500,000 contract to one of these major minority firms.

Some participants, particularly those in the design services industries, believed that minority and women firms enjoyed an unfair advantage.

[T]here are x number of minority, women firms that are available to put on our team. It's not fair because a lot of those firms, some of those firms, have more work than we'll ever have in our life, and 99% of it is State work just because they're an MWBE. Some of the larger firms in the area, they just get the work, and the State knows them, and if you use them, you get the work.... [T]here are a lot of MWBE firms who get work because they're MWBE, and they have one woman in the whole firm.... [I]t's really difficult to find a firm who you want to give an opportunity to, and not just an established firm we're hiring just because they're a MWBE.

[The M/WBEs that have formed] got an advantage over us [because it's too much of a preference for them].

[W]e've created a few firms that are oversaturated. They have more work. They don't have to compete for it. Under that scenario, where does quality enter in? Okay, if they know the work is coming in the door, where do they have to compete? So, the biggest question that I would pose for you today is, it's a two sided question. A, how do you change the program to better encourage additional minority firm startups? Such that there can be competition. I mean, I'm sorry, we all go through it. I would like to call up Minority Firm A and say, you're not performing. I'm firing you and I'm going to hire Minority Firm B. Now that's the type of competition we [White males] in this room face. If an owner, if we don't produce for our owner, for our client, they'll surely pull the job on us. They'll surely say, you're not working for us anymore.

I don't think you would get a disagreement on this end to give people opportunities. We just don't want to be penalized, which we would be. And, the converse of that is, we're giving people opportunities who have more opportunities than we'll ever get. That's the problem.

If you're a minority firm and somebody's calling you up on the phone and saying, hey, we're going to give you 18 percent and guess what, you don't have to do anything. Just get us your paperwork. Oh, would you like to help us with competing for the project? No, we can't, because we're going to be on everybody's team. So guess what, I'm not going to share my secrets with them.... It precludes them from ever being great because they are not competing for the work. They're being handed it. Okay, and they'll never be the qualified firm that has to sit down at 11:00 at night with a design team and say, how are

we going to win this job? They don't worry about that. They just send in their paperwork.... It's creating an unfair advantage for certain business types.

[T]he experiences that we have and the competitive environment we're placed in is what allows us to excel. And, you've taken that out of the minority program by taking out the competition.

[I]f there's only one DBE to do that certain kind of work in your area, they can name your price and you do your best to take it.

[J]ust like you put us in a competitive arena, put a competitive arena out there for the DBEs in their chosen field.

[T]he MWBE firms have to be more proactive. We as all contractors have become where we are because we are proactive. Too many MWBEs are reactive—they wait for you to call them, as opposed to reaching out.

In some sub-industries like land surveying, non-certified firm owners reported that they have been shut out of State subcontracts because these areas have plentiful M/WBE availability and prime contractors meet goals in those scopes of work.

I get like zero [State surveying work]. And, on top of that, because they've got now a monopoly and because most of the State work is done at prevailing wages, they can afford to hire the best people and pay them the most money. So, I can't compete on a level playing field. What maybe it used to be the other way around when the Program initiated but I can tell you right now it's not.... [F]rom my personal standpoint as a surveyor, I don't think the Program needs to exist.

I hear this every day because we operate as a subcontractor, and I call up people and I say, "How do I look on my quote?" They say, "Well, you look good, but I've got a goal to fill, so I can't use you." I've been hearing that for 25 years.... [S]o the general contractors' take on this is that the only way that I can meet this goal is to sub out the guardrailing to an MWBE, and that's discriminatory.

[I]t's the small businesses owned by White males that basically get excluded from the process.... [T]he primes, they're the problem. Because the primes just basically say, you know, I'm giving it to a DMWBE, as little as possible, whether it's 18 percent, 15 percent, 25 percent goal. And we're going to do the rest in house.... The problem is, is when we work as a sub to primes. Primes are the frigging problem of everything. They are evil. They're Darth Vader.

Some majority male owners stated that there should be no goals.

[T]here shouldn't be a mandate.

[W]e have a Black governor and we have a Black president, so I think things have changed.

[W]e've made that effort [to support MBEs] over the last 30 years, and there are very few that have surfaced.

There is no reason whatsoever that a good subcontractor or supplier, that the color of their skin, their nationality, it doesn't matter. [The Program] makes it matter, and I think that's one of the problems. Unless the problem gets solved not in our lap but gets solved where it's initiating this whole issue, which I believe would be the government, then it's never going to get solved.

[I]t's really not [being Black] that has held them back. It really turns out to be the personal, I'm going to succeed and I'm going to have my own business, and I'm going to be the master of my destiny, as opposed to, whether I have the opportunity.

One majority firm representative reported that the goals had increased M/WBE capacity and served a useful objective.

[W]hen we first started the project, yes, there's only a handful of contractors that people could name that were minority-owned that could do the work.... However, there has been a number of contractors that because there's been a steady flow of work and bidding opportunities, they have been able to become more competitive, whether that be in drywall installation or painting or there's a couple of electrical contractors here. There are several categories of work which I can name more. I could tell you at least two or three M or WBEs that could do the work. Now if they were bidding on another job that had no goals, some would say, "Oh, they couldn't compete." But I do know of a couple of examples where yes, they did compete and now because they've had a steady cash flow and they've been able to build capacity.... [Next time], once somebody was deemed lowest bidder, we would probably descope number one and number two. To make sure, we would go through each section, kind of line items, to see what their costs were. We do detailed estimates prior to doing the bid, so if there was a big discrepancy and we realized, "Okay, your package is \$100,000 off in this section, then you should really think about that," and that has worked in some cases. People have rescinded their bids because they realized they didn't know what they were doing. But, that made them wiser for the next time. So, when they came back, their bids were better. They could be more competitive, and perhaps they didn't get that first bid maybe but they got the second or third one.

There was some support among majority male participants for contract set-asides for M/WBEs as a way to address the shortage of qualified contractors and relieve them of the responsibility for creating opportunities for often marginal companies.

I've often in recent times suggested set-asides. We used to do it at AGC. ABC used to hate the idea of set-asides as really being unfair to majority subcontractors who wouldn't get an opportunity to bid on that work and to get it. But, the more I look at it, oftentimes the agencies are so encouraging (I guess would be one way to put it, or hammer over my head incentive) to get minority firms, that they basically say, "I don't care if they can't pay their payroll. You have to fund their payroll. You have to pay them every two weeks even if you're getting paid every four or five weeks. I don't really care," they will say to

you, "if their number is higher than other majority subcontractors, you need to make progress on your goals and you need to-- I don't care if they are not union even though you have a union contract and you can't subcontract to a non-union contractor. Get them into the union." They'll also say, "I don't really care if they are not qualified and if their work is going to be rejected, because it's going to be your work. I'm going to reject your work, and then it's your problem."... I say to them, "Wait a minute. Wait a minute. If you're so intent on meeting the goals, then why don't you take it out of my contract and simply set aside the painting on this project or a portion of the painting, and you, Mr. Owner, contract for it directly."... Then if that minority contractor sets aside who it's awarded to whose work is not good, you the owner have to reject it. Then it's not my problem.

[H]ow about DBE set aside programs in those cases [where it is a small contract with few subcontracting opportunities]? Don't make it part of the prime. Why is it the prime's responsibility all the time? Why not make it the authority's responsibility. And any breakout projects that would be meaningful-- give a sub the A through Z responsibility on a job.... It teaches them how to write letters, how to compete, how to then do the job, how to hire the subs. Maybe with a mentoring program, that could be something that the firm that wins the prime contract has the responsibility to do the mentoring.

A few majority prime contractors stated that they use M/WBEs on non-goals jobs.

We have a lot of people we use, DBEs that we use on a regular basis whether the job has a goal or not. They are just good subcontractors and we just choose them on a regular basis.

If you have reputable minority- or women-owned businesses that are economically and technically sound, we contract with them whether we needed the goal or not. I guarantee you that.

c. Contract Performance Monitoring

Finally, numerous concerns were raised about how New York monitors Program compliance during contract performance.

i. Fulfilling M/WBE goals

Many M/WBEs reported being substituted on a project with little or no remedy.

I think it all goes back to the compliance. There are no compliance efforts.

The iterations that we've experienced are this: They take your quote. They put your name down. They put your tax ID number down. The next iteration is they actually sign a contract with you, you expect to work. Then they don't call you for work and you knock on the State agency's door and you say, "Hey, I have a contract I'm anticipating working," and then the State agency then begins to roll around. What's most critical here is that there is in fact never waivers. If [the prime contractor] don't meet the goal, [the

State personnel] don't say, "We are going to waive the goal. Instead of it being 8% because you've only been able to show us 6% or 5%," they don't actually write anything down and put pen to paper saying that their waiving that 3%. Instead, what they say is, "Oh well, you met 5 out of the 8. Just keep going." That way the State agency is never in a position where there's actually a waiver in place. You can't actually find where the waiver is or someone actually posts it, and then there's no monitoring of the compliance with the plan. Then when you are put on that plan falsely and you do knock on the State agency's doors, their goal at that point then becomes to cover their own asses and try and somehow blame it on you that somehow that you were falsely put on this plan.

[T]hese agencies want to take the position of they would rather have a good relationship with the general contractor and the associations that the general contractors belong to [than support M/WBEs].

Some prime consultants agreed that they were permitted to waive the goals after contract award.

Getting the job, you got to [meet the goals]. Performing it, sometimes they let you, depending on the agency, depending on the project, depending on your explanation, they will let you slide to some degree.

ii. Payment

Payment was a universal problem. Smaller firms, including most M/WBEs, found slow pay to be a major barrier to participating on State contracts as either a prime vendor or a subcontractor.

The money situation is...very bad. I don't get paid [by the State] for months.

I think it was just the indifference on the part of the state agency in terms of paying and so forth. That had a major effect on us really.

My biggest concern with OGS, is I'm scared of how they pay people. Everything I hear about OGS is 60, 90 days after the job is complete, and I run. I'm not going to lie.... I've heard general contractors who've completed jobs and have said they waited six months to get paid from OGS, and that's the GC that had no problems and the job went through quickly.... With companies like me, if I do a job and not get paid, that would pretty much shut my business down until I got paid for that job.

The State literally destroys your credit because...you're 90 to 120 days out and the suppliers want payment in 30 days. So, they start destroying your credit.... Now I'm fortunate I don't have the labor situation because I'm strictly supply right now, but still, I get the same thing. I haven't gotten paid.... So, now you're calling the State to see if the general paid the painter who needs to pay you and again, I'm frequently three tiers down. And nobody's paying me until they get paid and then I can't prove they've gotten paid and it just trickles on.

[P]ayments can be a serious issue unless you know who to get in touch with. If you don't know who to get in touch with and the agencies that you're working at, you're in trouble.

I have no way of finding out when the prime actually got paid so I can hold them to the fire that my contract says I get paid on this date.

[T]here's absolutely no reason why subs can't find out when the main contractor got paid.

[I]t really has nothing to do with whether your certified or not, or whether you're an MBE, a WBE, a DBE or any certification. That has nothing to do with it, because we're none of those things and we're waiting six or eight months on payments from a different state agency, and it's the state's economic situation.... [T]his is a business problem, because you have to make the payroll. We're trying to make the payroll.

Ours is net 12 months for change orders, and that's not an exaggeration. When you have change orders, if you do something outside of the scope, and then the process to get a change order accomplished is just horrific. It's just it takes five different steps and then the comptroller is the last person to sign off it in Albany. Well, where is the urgency on their part to provide that? There isn't. So, you've got change orders. Right now I'm sitting on one that's six months old. It's worth \$400,000. I'm hanging on to it for six months now, and then the last I knew it was in Albany for the last three months and that's where it's at.

We've just waited a year and we still haven't been fully paid for materials that we supplied on a project. The contractor hasn't been paid. That's part of how he finances it. He doesn't pay his materials supplier.

Suppliers who sold directly to the State reported fewer problems getting paid.

For all the 14 years, they've never even been late.

The difference is...we sell a product.

X. References

Acs, Z. and D. Evans (1994), "The determinants of variations in self-employment rates across countries and over time," working paper.

Alba-Ramirez, A. (1994), "Self-employment in the midst of unemployment; the case of Spain and the United States," Applied Economics, 2, pp.189-204.

Arai A. B. (1997), "The road not taken, The transition from unemployment to self-employment in Canada, 1961-1994," Canadian Journal of Sociology 22, Summer, pp. 365-382.

Aronson, R. L. (1991), Self-employment. ILR Press, Ithaca, NY, ILR Press.

Bates, T. (1973), Black capitalism, a quantitative analysis. New York, Praeger.

Bates, T. (1989), "The changing nature of minority business, a comparative analysis of Asian, non-minority, and black-owned businesses," The Review of Black Political Economy, pp. 25-42.

Bates, T. (1991a), "Discrimination and the capacity of Chicago metropolitan area minority and women-owned businesses," Report to the City of Chicago Department of Law.

Bates, T. (1991b), "Commercial bank financing of white- and black-owned small business startups," Quarterly Review of Economics and Business, 31(1), pp. 64-80.

Bates, T. (1993), "Banking on black enterprise, the potential of emerging firms for revitalizing urban economies," Washington D.C., Joint Center for Political and Economic Studies.

Bauer, P. W. and B. A. Cromwell (1994), "A Monte Carlo examination of bias tests in mortgage lending," Federal Reserve Bank of Cleveland Economic Review, 30(3), pp. 27-40.

Becker, G. S. (1957), The economics of discrimination, University of Chicago Press, Chicago, Illinois,.

Bernhardt, I. (1994) "Comparative advantage in self-employment and paid work," Canadian Journal of Economics, May 1994, pp. 273-289.

Black, J., D. de Meza, and D. Jeffreys (1996), "House Price, the Supply of Collateral and the Enterprise Economy," Economic Journal, 106(434), January, pp. 60-75.

Blanchflower, D.G. (2000), "Self-employment in OECD countries," Labour Economics, 7, September, pp. 471-505.

Blanchflower, D.G. (2009), "Minority self-employment in the United States and the impact of affirmative action programs," Annals of Finance, (5)3-4, pp. 361-396.

Blanchflower, D.G., D. S. Evans, and A. J. Oswald (1998a), "Credit cards and entrepreneurs," working paper, National Economic Research Associates, Cambridge, Massachusetts, 1998a.

Blanchflower, D.G., D. S. Evans, and A. J. Oswald (1998b), "Credit cards and consumers," working paper, National Economic Research Associates, Cambridge, Massachusetts, 1998b.

Blanchflower, D.G., P. Levine and D. Zimmerman (2003), "Discrimination In The Small Business Credit Market," Review of Economics and Statistics, 85(4), pp. 930-943.

Blanchflower, D.G. and B. Meyer (1994), "A longitudinal analysis of the young self-employed in Australia and the United States," Small Business Economics, 6, pp.1-20.

Blanchflower, D.G. and A. J. Oswald (1990), "Self-employment and the enterprise culture," British Social Attitudes, the 1990 Report. Edited by R. Jowell, and S.

Blanchflower, D.G. and A. J. Oswald (1994), The Wage Curve. Cambridge, MIT Press, 1994.

Blanchflower, D.G. and A. J. Oswald (1998), "What makes an entrepreneur?," Journal of Labor Economics, 16(1), January, pp. 26-60.

Blanchflower, D.G. and A.J. Oswald (2008), "What makes a young entrepreneur?," International Handbook on Youth and Young Adulthood edited by Andy Furlong, in the Routledge International Handbook series.

Blanchflower, D.G., A. J. Oswald, and A. Stutzer (2001), "Latent entrepreneurship across nations," European Economic Review, 45, no.4-6, May, pp.680-691.

Blanchflower, D.G. and C. Shadforth (2007), "Entrepreneurship in the UK," Foundations and Trends in Entrepreneurship, 3(4), pp. 257-364.

Blanchflower, D.G. and J. S. Wainwright (2005), "An Analysis of the Impact of Affirmative Action Programs on Self-Employment in the Construction Industry?," National Bureau of Economic Research Working Paper Series, #11793, November.

Blau, D. (1987), "A time-series analysis of self-employment in the United States," Journal of Political Economy, 95, 445-467.

Bogenhold, D. and U. Staber (1991), "The decline and rise of self-employment," Employment and Society, 5, 223-239.

Borjas, G.J. and S. Bronars (1989), "Consumer discrimination and self-employment," Journal of Political Economy 97, 581-605.

- Broussard, N., R. Chami, and G. Hess (2003), “(Why) do self-employed parents have more children?” working paper, September.
- Cagetti, M., and M. DeNardi (2006), “Entrepreneurship, frictions and wealth,” Journal of Political Economy, 114(5), 835-70.
- Browne, L.E. and G. M. B. Tootell (1995), “Mortgage Lending in Boston-A Response to the Critics,” New England Economic Review, September-October, pp. 53-78.
- Cavalluzzo, K. S. and L. C. Cavalluzzo (1998), “Market Structure and Discrimination, The Case of Small Businesses,” Journal of Money, Credit, and Banking, 30(4), November, pp. 771-792.
- Cavalluzzo, K. S., L. C. Cavalluzzo, and J. Wolken (1999), “Competition, Small Business Financing, and Discrimination, Evidence from a New Survey,” unpublished manuscript, Georgetown University, February.
- Cloud, C. and G. Galster (1993), “What Do We Know about Racial Discrimination in Mortgage Markets,” Review of Black Political Economy, 22(1), Summer, pp. 101-120.
- Coat, S. and S. Tennyson, “Labor market discrimination, imperfect information and self-employment,” Oxford Economic Papers, 44, 272-288.
- Cole, R. A. (1992), “Availability of Credit to Small and Minority-Owned Businesses, Evidence from the 1993 National Survey of Small Business Finances,” unpublished manuscript, Employment Policies Institute, Washington, DC. April 13, 1998.
- Cowling, M. and P. Mitchell (1997), “The evolution of UK self-employment, A study of government policy and the role of the macroeconomy,” Manchester School of Economic and Social Studies, 65 no.4, September, 427-442.
- Day, T. S. and S. J. Liebowitz (1998), “Mortgage lending to minorities, where’s the bias?,” Economic Inquiry, XXXVI, January, pp. 3-28.
- DeWit, G. and F. A. Van Winden (1990), “An empirical analysis of self-employment in the Netherlands,” Economics Letters, 32, 97-100.
- Dunn, T. A. and D.J. Holtz-Eakin (2000), “Financial capital, human capital, and the transition to self-employment: evidence from intergenerational links,” Journal of Labor Economics, 18 (2): 282-305.
- Evans, D. and B. Jovanovic (1989), “An estimated model of entrepreneurial choice under liquidity constraints,” Journal of Political Economy, 97, pp. 808-827.
- Evans, D. and Linda Leighton (1989), “Some empirical aspects of entrepreneurship,” American Economic Review, 79, pp. 519-535.

References

- Fairlie, R. W. (1999), "The absence of the African American owned business, an analysis of the dynamics of self-employment," Journal of Labor Economics, 17(1), pp. 80-108.
- Fairlie R. W. and B. D. Meyer (1996), "Ethnic and Racial Self-Employment Differences and Possible Explanations," Journal of Human Resources, 31(4), pp. 757-793.
- Fairlie, R.W. and B.D. Meyer (2000), "Trends in self-employment among white and black men during the twentieth century," Journal of Human Resources, XXXV(4), pp. 643-669.
- Fairlie, R.W. (2006), "Entrepreneurship among Disadvantaged Groups: An Analysis of the Dynamics of Self-Employment by Gender, Race and Education," Handbook of Entrepreneurship, Volume 2, eds. Simon C. Parker, Zoltan J. Acs, and David R. Audretsch, New York: Springer Verlag.
- Fairlie, R.W. and H.A. Krashinsky (2006), "Liquidity constraints, household wealth and entrepreneurship revisited," Working Paper, University of California, Santa Cruz.
- Fairlie R. W. and B. D. Meyer (1998), "Does immigration hurt Black self-employment?" Help or Hindrance? The Economic Implications of Immigration for Blacks. Edited by D. S. Hamermesh and F. D. Bean. New York, Russell Sage Foundation.
- Fairlie R. W. and B. D. Meyer (2000), "Trends in self-employment among White and black men during the twentieth century," Journal of Human Resources, XXXV, no.4, 643-669.
- Fairlie R. W. and B. D. Meyer (2003), "The effect of immigration on native self-employment," Journal of Labor Economics, 21(3), pp.619-650.
- Fairlie, R.W. and A. Robb (2007a), "Why are black-owned businesses less successful than white-owned businesses? The role of families, inheritances, and business human capital," Journal of Labor Economics, 25(2), pp. 289-323.
- Fairlie, R.W. and A. Robb (2007b) "Families, human capital, and small business: evidence from the Characteristics of Business Owners Survey," Industrial and Labor Relations Review, 60(2), pp. 225-245.
- Ferri, G. and P. Simon (1997), "Constrained consumer lending, exploring business cycle patterns using the Survey of Consumer Finances," working paper, Princeton University.
- Foti, A. and M. Vivarelli (1994), "An econometric test of the self-employment model - the case of Italy," Small Business Economics, 6, no.2, April, 81-93.
- Fuchs, V. (1982), "Self-employment and labor force participation of older males," Journal of Human Resources 17, Fall, 339-357.

Goldstein, R., "Friedman's ANOVA & Kendall's Coefficient of Concordance," Stata Technical Bulletin Reprints, Vol. 1, College Station, Texas: Stata Corporation, 1991, pp. 157–158.

Greene, W. H., Econometric Analysis, Third Edition, New Jersey, Prentice-Hall, 1997, pp. 926-931

Hall, R. E. and F. Mishkin (1982), "The Sensitivity of Consumption to Transitory Income, Estimates from Panel Data on Households," Econometrica, 50(2), pp 461-81.

Harrison, G. W. (1998), "Mortgage lending in Boston, a reconsideration of the evidence," Economic Inquiry, XXXVI, January, pp. 29-38.

Hayashi, F. (1985), "The effect of liquidity constraints on consumption, a cross-sectional analysis," Quarterly Journal of Economics, 100(1), February, pp. 183-206.

Heckman, J. J. (1998), "Detecting discrimination," Journal of Economic Perspectives, 12(2), Spring, pp. 101-116.

Holmes T. J. and J. A. Schmitz, "A theory of entrepreneurship and its application to the study of business transfers," Journal of Political Economy 89 (1990), 265-294.

Holtz-Eakin, D. D. Joulfaian, and R. S. Harvey (1994a), "Entrepreneurial decisions and liquidity constraints," Journal of Political Economy, 102, pp. 53-75.

Holtz-Eakin, D. D. Joulfaian, and R. S. Harvey, (1994b),"Sticking it out, entrepreneurial survival and liquidity constraints," Rand Journal of Economics, 25(2), Summer, pp. 334-347.

Horne, D. (1994), "Evaluating the role of race in mortgage lending," FDIC Banking Review, 7(1), Spring/Summer, pp. 1-15.

Hout, M. and H. Rosen (2000), "Self-Employment, family background, and race," Journal of Human Resources, 35 no.4, Fall, 670-92.

Hurst, E. and A. Lusardi (2004), "Liquidity Constraints, Household Wealth, and Entrepreneurship," Journal of Political Economy, April, Vol. 112(2), pp. 319-347.

Jappelli, J. (1990), "Who is credit constrained in the U.S. economy?," Quarterly Journal of Economics, 105(1), February, pp. 219-234.

Kanbur, S.M.R. (1990), "Entrepreneurial risk taking, inequality, and public policy, an application of inequality decomposition analysis to the general equilibrium effects of progressive taxation," Journal of Political Economy, 90, 1-21.

Kidd, M. (1993) "Immigrant wage differentials and the role of self-employment in Australia," Australian Economic Papers, 32, no.60, June, 92-115.

Kihlstrom, R.E. and J. J. Laffont (1979), "A general equilibrium entrepreneurial theory of firm formation based on risk aversion," Journal of Political Economy, 87, 719-848.

King, Miriam, Steven Ruggles, Trent Alexander, Donna Leicach, and Matthew Sobek (2009), Integrated Public Use Microdata Series, Current Population Survey: Version 2.0. [Machine-readable database]. Minneapolis, MN: Minnesota Population Center [producer and distributor].

Kuhn, P.J. and H. J. Schuetze (1998), "The dynamics of self-employment in Canada," working paper, McMaster University.

Ladd, H.F. (1998), "Evidence on discrimination in mortgage lending," Journal of Economic Perspectives, 12(2), Spring, pp. 41-62.

LaFerrere, A. and P. McEntee, "Self-employment and intergenerational transfers of physical and human capital, An empirical analysis of French data," Economic and Social Review 27 no.1 (October 1995), 43-54.

Lentz, B. F. and D. N. Laband (1990), "Entrepreneurial success and occupational inheritance among proprietors," Canadian Journal of Economics, 23, 563-579.

Lindh, T. and H. Ohlsson (1996), "Self-employment and windfall gains, Evidence from the Swedish lottery," Economic Journal, 106(439), November, pp. 1515-1526.

Long, J. E., (1982), "The income tax and self-employment," National Tax Journal 35, March, pp. 31-42.

Mach, T.L. and J.D. Wolken (2006). "Financial services used by small businesses: evidence from the 2003 Survey of Small Business Finances," Federal Reserve Bulletin, October 2006.

Maddala, G. S. and R. P. Trost (1994), "On measuring discrimination in loan markets," United Kingdom, Elgar, G.S. Maddala (ed.), Econometric Methods and Applications, 2, pp. 267-290.

Meager, N. (1992)"Does unemployment lead to self-employment?" Small Business Economics, 4, 87-103.

Mora, M.T. and A. Dávila (2006), "Mexican immigrant self-employment along the U.S.-Mexico border: an analysis of 2000 Census data", Social Science Quarterly, 87(1), March.

Munnell, A. G., M. B. Tootell, L. E. Browne, and J. McEneaney (1996), "Mortgage lending in Boston, interpreting HMDA data," American Economic Review, March 1996, 86(1), pp. 25-53.

Myrdal, G. (1944), An American dilemma, the negro problem and modern democracy, Volume 1, New York, Harper & Row.

Oaxaca, R. L. (1973), "Male-female wage differences in urban labor markets," International Economic Review, 14(3), October, pp. 693-709.

Olson, P.D., V. S. Zuiker and C.P. Montalto (2000), "Self-employed Hispanics and Hispanic wage earners: differences in earnings," Hispanic Journal of Behavioral Sciences, 22, pp. 114-130.

Parker, S. C. (2004), The Economics of Self-Employment and Entrepreneurship. Cambridge: Cambridge University Press.

Pickles, A. R. A. R. and P. N. O'Farrell (1987), "An analysis of entrepreneurial behavior from male work histories," Regional Studies, 21, 425-444.

Quinn, J. F. (1980), "Labor force participation patterns of older self-employed workers," Social Security Bulletin, 43, 17-28.

Reardon, E. (1998), "Are the self-employed misfits or superstars?" working paper, Rand Corporation.

Rees, H. and A. Shah (1986), "An empirical analysis of self-employment in the UK," Journal of Applied Econometrics, 1, 95-108.

Robles, B.J. and H. Cordero-Guzmán (2007), "Latino self-employment and entrepreneurship in the United States: an overview of the literature and data sources," The Annals of the American Academy of Political and Social Science, 613; pp. 18-31.

Robson, M. T. (1998), "The rise in self-employment amongst UK males," Small Business Economics, 10, no.3, 199-212

Robson, M. T. (1998), "Self-employment in the UK regions," Applied Economics, 30, no.3, March, pp. 313-322.

Schuetze, H.J. (1998), "Taxes, economic conditions and recent trends in male self-employment; a Canada-U.S. comparison," working paper, McMaster University, Hamilton, Ontario, Canada.

Taylor, M. P. (1996), "Earnings, independence or unemployment; why become self-employed?" Oxford Bulletin of Economics and Statistics, 58, 2, 253-265.

Tootell, G. M. B. (1996), "Turning a critical eye on the critics," Mortgage lending, racial discrimination and federal policy, edited by J. Goering and R. Wienk, Urban Institute Press, Washington, D.C.

U.S. Chamber of Commerce (2005), Access to capital, what funding sources work for you? U.S. Chamber of Commerce, Washington DC.

References

Yezer, M. J., R. F. Phillips, and R. P. Trost (1994), "Bias in estimates of discrimination and default in mortgage lending; the effects of simultaneity and self-selection," Journal of Real Estate Finance and Economics, 9(3), pp. 196-215.

Wainwright, J. and C. Holt (2010), Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program, Transportation Research Board of the National Academies, NCHRP Report, Issue No. 644.

Wainwright, J. S. (2000), "Racial discrimination and minority business enterprise, evidence from the 1990 Census," Studies in Entrepreneurship Series. Edited by S. Bruchey. New York, Garland Publishing.

Appendix A—Master Directory Sources

A. Entities whose lists of M/WBE firms that were duplicative of previously collected lists

African American Chamber of Commerce of Westchester and Rockland Counties, Inc.
Albany International Airport
Albany School District
Brooklyn Chamber of Commerce
Broome County
City of Buffalo, NY
Columbia University
Dormitory Authority of the State of New York
Dutchess County, NY
Elmira/Corning Regional Airport
Greater Binghamton Airport
Greater Rochester International Airport
Hudson Valley Municipal Purchasing Group
City of Ithaca, NY
Ithaca Tompkins Regional Airport
Ithaca-Tompkins County Transportation Council
John F. Kennedy International Airport
Kings County, NY
LaGuardia Airport
Long Island MacArthur Airport
Macy's Federated Department Stores Supplier Diversity
Metropolitan Transportation Authority
Minority Business Directory
Monroe County, NY
National Association of Minority Contractors-New York Chapter
City of New Rochelle, NY
New York City Department of Education
New York City Health & Hospitals Corporation
New York City Housing Authority
New York City School Construction Authority
New York Power Authority
New York State Canal Corporation
New York State Department of Transportation
New York State Soil and Water Conservation
New York State Thruway Authority
Niagara Falls International Airport
Niagara Frontier Transportation Authority
Oneida County, NY
Onondaga County, NY
Orange County, NY
Oswego County, NY

Putnam County, NY
Regional Alliance for Small Contractors
City of Rochester, NY
Rockland County, NY
Salomon Smith Barney
City of Schenectady, NY
Schenectady County
Schenectady School District
Stewart International Airport
Stony Brook University
Stop & Shop Supplier Diversity
Syracuse Hancock International Airport
Target Stores
Tompkins County
United Parcel Service
University of Buffalo
Urban League of Rochester
Westchester County
Westchester County Airport
Westchester Hispanic Chamber of Commerce
Women's Business Center of New York State
City of Yonkers, NY

Central Connecticut State University
City of Danbury, CT
City of Stamford, CT
Connecticut Department of Economic and Community Development
Eastern Connecticut State University
Northeast Utilities System
Southern Connecticut State University
Tweed-New Haven Airport
University of Connecticut
Western Connecticut State University
Bradley International Airport
Bridgeport Port Authority
Bridgeport Public Schools
AboutBlackBoston.com
Massachusetts Affirmative Market Program
Barnstable Municipal Airport
Boston Business Assistance Center
Central Square Business Association
City of Fall River, MA
City of Lynn, MA
City of New Bedford, MA
City of Newton, MA
City of Pittsfield, MA

City of Salem, MA
Coast and Harbor Associates
Comm-Pass/Operational Services Department
General Edward Lawrence Logan International Airport
Inman Square Business Association
Massachusetts Alliance for Economic Development
Massachusetts Bay Transportation Authority
Massachusetts Community Development Finance Corporation
Massachusetts Highway Department
Massachusetts Office of Business Development
Massachusetts Port Authority
Massachusetts Turnpike Authority
Massachusetts Water Resources Authority
Springfield Office of Economic Development
University of Massachusetts Amherst
Western Massachusetts Economic Development Council
Westmass Area Development Corporation

Brown University
Atlantic Cape Community College
Atlantic City International Airport
Atlantic County, NJ
Bergen County, NJ
Burlington County, NJ
Camden County, NJ
City of Clifton, NJ
City of Edison, NJ
Gloucester County, NJ
Hunterdon County, NJ
Mercer County, NJ
Middlesex County, NJ
Monmouth County, NJ
Morris County, NJ
Ocean County, NJ
Passaic County, NJ
Salem County, NJ
Somerset County, NJ
Sussex County, NJ
Union County, NJ
Delaware River Port Authority of Pennsylvania and New Jersey
New Jersey Economic Development Authority
New Jersey Turnpike Authority
Newark Liberty International Airport
South Jersey Transportation Authority
State of New Jersey Department of Commerce
State of New Jersey Schools Development Authority

Trenton-Mercer Airport

Allegheny County, PA
Allegheny County Airport Authority
City of Allentown, PA
City of Altoona, PA
Armstrong County, PA
Berks County, PA
Blair County, PA
Bucks County, PA
Butler County, PA
Cambria County, PA
Chester County, PA
Cumberland County, PA
Delaware County, PA
Erie County, PA
Fayette County, PA
Lackawanna County, PA
City of Lancaster, PA
Lancaster County, PA
Lehigh County, PA
Luzerne County, PA
Montgomery County, PA
Northampton County, PA
Philadelphia County, PA
Pike County, PA
City of Pittsburgh, PA
Warren County, PA
Washington County, PA
Westmoreland County, PA
Wyoming County, PA
Erie International Airport
Arnold Palmer Regional Airport
John Murtha Johnstown-Cambria County Airport
Lehigh Valley International Airport
Pennsylvania Department of Transportation
Pennsylvania Turnpike Commission
Philadelphia International Airport
Pittsburgh Urban Redevelopment Authority
Port Authority of Allegheny County
Southeastern Pennsylvania Transportation Authority
University Park Airport
Wilkes-Barre/Scranton International Airport
Williamsport Regional Airport

City of Woonsocket, RI

East Providence Water Department
Eckerd-CVS Corporation
Rhode Island College
Rhode Island Economic Development Corporation
Rhode Island Public Transit Authority
State of Rhode Island Minority Business Enterprise
Theodore Francis Green State Airport
University of Rhode Island
Woonsocket Public Works
Burlington International Airport
Chittenden County Regional Planning Commission
City of Montpelier, VT
Vermont Commission on Women

B. Entities who had no directory, or their directory did not identify race and sex

100 Black Men of Long Island, Inc.
Albany County, NY
Asia Society
Asian American Business Development Center
Asian Business Society of New York University
Asian Nation
Association of Minority Enterprises of New York, Inc.
Black Women Enterprises
Bronx County, NY
Bronx Overall Economic Development Corporation
Building Trades Employer's Association
The Business Council of Westchester
The Business of Women Small Business Development Center
Center for Fair Contracting
The Challenger Newspaper
Chinatown Manpower Project
Chinatown Partnership LDC
Chinese Chamber of Commerce of New York, Inc.
City of Albany, NY
City of Cheektowaga, NY
City of Mount Vernon, NY
City of Syracuse, NY
City of Troy, NY
City of White Plains, NY
Corning Area Chamber of Commerce
Eastman Kodak Company
Erie County, NY
Essex County, NY

Fordham College
Jackson Heights Merchants Association
Japanese Chamber of Commerce and Industry of New York, Inc.
Korean Chamber of Commerce & Industry
Madison County, NY
National Hispanic Business Women Association
New York County, NY
New York Electrical Contractors Association
New York University
Niagara County, NY
Queens County, NY
RCI
Rensselaer County Regional Chamber of Commerce
Saratoga County, NY
Subcontractors Trade Association
Suffolk County Coalition of Minority Businesses
SUNY Canton College of Technology-Small Business Development Center Women's Network
Tompkins Consolidated Area Transit
Women Presidents Educational Organization

Bridgeport Economic Resource Center
Bridgeport Regional Business Council
Bryant University
The Business Council of Fairfield County
Capital Region Black Chamber of Commerce
Central Connecticut State University Small Business Development Center
City of Bristol, CT
City of Meriden, CT
City of Milford, CT
City of New Britain, CT
City of Norwalk, CT
City of Waterbury, CT
City of West Hartford, CT
City of West Haven, CT
Connecticut River Estuary Regional Planning Agency
Connecticut Secretary of State Small and Minority Business Services Unit
Eastern, Northwest and North Central Soil and Water Conservation Districts
Fairfield County, CT
The Global Organization of People of Indian Origin
Greater Stamford Hispanic Chamber of Commerce, Inc.
Hartford County, CT
Metro Hartford Alliance
Middlesex County, CT
National Association of Women in Construction-Hartford
New Haven County, CT
New London County, CT

Professional Women in Construction-Connecticut chapter
Tolland County, CT
Waterbury Public Schools
The Women's Business Development Center of Connecticut
Yale University

Ahold USA
American Indian Development Associates
Asian Community Development Corporation
Boston Public Schools
Cambridge Public School District
Central Berkshire Regional School District
CercaVeo DMWBE Directory
Charles Hamilton Houston Institute for Race & Justice at Harvard Law School
City of Brockton, MA
City of Cambridge, MA
City of Lowell, MA
City of Quincy, MA
City of Springfield, MA
City of Worcester, MA
Diversity Development
Essex County, MA
Franklin County, MA
Hampden County, MA
Hampshire County, MA
Hanscom Air Force Base
Harvard Square Business Association
Holyoke Community College
Inner City Entrepreneurs
Massachusetts Association of Community Development Corporations
Massachusetts Nursery and Landscape Association
Middleborough Office Economic Development
Middlesex County, MA
Minority Business Entrepreneur Magazine
Minority Businesses of New England
National Property Management Association
New Bedford Economic Development Council
New Bedford Public Schools
New Bedford Regional Airport
Norfolk County Purchasing Department
North Central Massachusetts Minority Coalition
ONABEN Native American Business Network
Plymouth County, MA
Provincetown Municipal Airport
The Quincy 2000 Corporation
Quincy Business Association

Sampan Chinese Newspaper
Smaller Business Association of New England
Springfield Area Council on Excellence
Suffolk County, MA
UMass Boston Small Business Development Center and Minority Business Center
Urban League of Eastern Massachusetts
Western Massachusetts Enterprise Fund, Inc.
Worcester County, MA

City of Camden, NJ
City of Elizabeth, NJ
City of Ewing, NJ
City of New Brunswick, NJ
City of Paterson, NJ
City of Toms River, NJ
Federation of Indian Associations
The Greater Atlantic City Chamber of Commerce
New Jersey Chinese-American Chamber of Commerce
New Jersey Minority Business Directory
Princeton University
Seton Hall University
Township of Brick, NJ
Township of Cherry Hill, NJ

Allegheny County, PA
Asian American Chamber of Commerce of Greater Philadelphia
Borough of Union City, PA
Carbon County, PA
City of Bethlehem, PA
City of Erie, PA
City of Harrisburg, PA
City of Levittown, PA
City of Reading, PA
City of Scranton, PA
City of York, PA
Dauphin County, PA
Greater Philadelphia Hispanic Chamber of Commerce
Greater Philadelphia Minority Business Strategic Alliance
Japan America Society of Greater Philadelphia
The Japan Association of Greater Pittsburgh
Japan Business Center
Japan-America Society of Pennsylvania
National Association of Asian American Professionals - Philadelphia Chapter
Pennsylvania Minority Business Enterprise Center
Pennsylvania Small Business Development Center
Philadelphia Chinatown Development Corporation

Professional Women in Construction-Pennsylvania chapter
Rite-Aid
University of Pennsylvania Purchasing Initiative
York County, PA

Bristol County, RI
City of Cranston, RI
City of East Providence, RI
City of Newport, RI
City of Pawtucket, RI
City of Providence, RI
City of Warwick, RI
Cranston Public Schools
Kent County, RI
Newport County, RI
Newport Water Works
Providence College
Providence County, RI
Providence Public Schools
Providence Water Supply Board
Washington County, RI
Woonsocket Schools

Broc Community Action in Southwestern Vermont
Central Vermont Community Action Council Inc.
Champlain Valley Office of Economic Opportunity Inc.
City of Burlington, VT
Franklin County, VT
Grand Isle County, VT
Northeast Kingdom Community Action Inc.
Southeastern Vermont Community Action Council Inc.
State of Vermont Agency of Administration
University of Hartford
University of Vermont at Burlington
Vermont Business for Social Responsibility
Vermont Economic Development Authority
Women's Small Business Program

C. Entities that were non responsive to repeated contacts

American Express Company
Asian American for Equality
Bank of America
Binghamton Women's Business Owner Roundtable
Buffalo City Schools

The Business Council of New York State, Inc.
Capital District Black Chamber of Commerce
Colgate-Palmolive Company
con Edison
Fleet National Bank
Golub Corp.
HSBC Bank USA
International Business Machines Corporation
Interpublic Group
Long Island Native American Business Alliance
Manhattan Hispanic Chamber of Commerce, Inc.
Nassau County, NY
National Association of Asian American Professionals-New York
National Minority Business Council
National Society of Black Engineers
New York Life Insurance Company
PepsiCo
Pfizer, Inc.
Philippine American Chamber of Commerce - New York
Professional Women in Construction-New York
Queens Hispanic Chamber of Commerce
Sears Roebuck & Company
Society of Hispanic Professional Engineers
South Asian Business Association of Columbia Business School
South Bronx Economic Development Corporation
Town of Islip, NY
Turner Construction Corp.
Wal-Mart Stores
Waldbaum Inc.
Xerox Corp.
Yonkers Hispanic Chamber of Commerce

100 Black Men of Stamford, Inc.
African American Affairs Commissioners
City of Hartford, CT
Connecticut Black News
Connecticut Latino Chamber of Commerce
The Filipino-American Association of Western Connecticut
Hispanic Chamber of Commerce of Greater Waterbury, Inc.
National Association of Women Business Owners-Connecticut
Society of Hispanic Professional Engineers
Spanish American Merchants Association
University of Bridgeport

Asian American Civic Association
Boston University

Hispanic-American Chamber of Commerce-Boston
Martha's Vineyard Airport
Massachusetts Latino Chamber of Commerce
Massachusetts Minority Contractors Association
Nantucket Memorial Airport
National Association for Minority Contractors-Boston
Worcester Public Schools
National Association of Minority Contractors
National Women Business Owners Corporation

Black Chamber of Commerce North Jersey
Camden Korean Business Association
Central New Jersey Hispanic Chamber of Commerce
City of Jersey City, NJ
City of Trenton, NJ
Greater New Brunswick Hispanic Merchants Association
Jersey City Asian Merchant Association
Mercer County Latino Chamber of Commerce
Metropolitan Trenton African-America Chamber of Commerce
Professional Women in Construction-New Jersey
Rutgers University

Beaver County, PA
Harrisburg International Airport
Hispanic Chamber of Commerce of Central Pennsylvania
The Korean American Association of Greater Philadelphia
Pittsburgh Asian American Young Professional Association

Urban League of Rhode Island

Business and Professional Women of Vermont
City of St. Albans, VT

D. Entities that refused to provide the requested information

Citigroup
Home Depot
IBM
J.P. Morgan Chase
Long Island Hispanic Chamber of Commerce
National Association of Women Business Owners-Buffalo/Niagara chapter
National Minority Supplier Development Council, Inc.- National Chapter
National Minority Supplier Development Council, Inc.- New York/New Jersey Chapter
National Minority Supplier Development Council, Inc.- Upstate New York Chapter
Rochester Hispanic Business Association

The Black Chamber of Commerce of Western New York
Time Warner
Women's Builders Council-New York City

Connecticut Minority Supplier Development Council

Boston Red Sox
Center for Women & Enterprise-Boston
Central Massachusetts Hispanic Chamber of Commerce, Inc.
Gillette Company
Harvard University
New England Minority Supplier Development Council
South Shore Women's Business Network

Goldman Sachs & Company
Johnson & Johnson
New Jersey Association of Women Business Owners
New Jersey Statewide Hispanic Chamber of Commerce

Bank of New York Company, Inc.
National Association of Women Business Owners – Philadelphia
Pittsburgh Chinatown Business Network
Pittsburgh Regional Minority Purchasing Council
Women's Business Network of Pennsylvania

Center for Women & Enterprise-Rhode Island
Hispanic American Chamber of Commerce of Rhode Island
Minority Investment Development Corporation

The Women's Agricultural Network (VT)

Appendix B—State Agencies, Authorities, and Other Budget Entities Subject to Article 15-A

Appendix B—State Agencies, Authorities, and Other Budget Entities Subject to Article 15-A

Adirondack Park Agency	Labor, Department of
Aging, State Office for the	Law, Department of
Agriculture and Markets, Department of	Livingston County Water & Sewer Authority
Albany County Airport Authority	Long Island Market Authority
Albany Port District Commission	Long Island Power Authority
Alcoholic Beverage Control, Division of	Lottery, Division of
Alcoholism & Substance Abuse Svcs, Office of	Manhattan & Bronx Surface Transit Op. Auth.
Alfred Sewer Authority	Mental Health, Office of
Almond Sewer Authority	Mental Ret. & Dev, Disabilities, Office of
Arts, Council on the	Metropolitan Suburban Bus Authority
State Comptroller's Office	Metropolitan Transportation Authority
Banking Department	Military and Naval Affairs, Division of
Battery Park City Authority	Mortgage Agency, State of New York
Bridge Authority	Motor Vehicles, Department of
Budget, Division of the	Commission on Public Integrity
Cayuga County Water & Sewer Authority	Financial Control Board
Children and Family Services, Office of	Homeland Security, Office of
City University of New York	Medicaid Inspector General, Office of
Civil Service, Department of	Natural Heritage Trust
Consumer Protection Board	Niagara Falls Public Water Authority
Correction, State Commission of	Niagara Falls Water Board
Correctional Services, Department of	NYS Emergency Management Office
Crime Victims Board	NYS Employment Relations Board
Criminal Justice Services, Division of	NYS Non-Profit Racing Assoc. Oversight Board
Developmental Disabilities Planning Council	NYS Office of Cyber-Security
Dormitory Authority	NYS Office of Federal Affairs
Economic Development, Department of	Office of National and Community Service
Education Department, State	Olympic Regional Development Authority
Elections, State Board of	Parks, Recreation & Historic Preserv., Office of
Empire Center at the Egg	Parole, Division of
Employee Relations, Office of	Port of Oswego Authority
Energy Research and Development Authority	Power Authority
Environmental Conservation, Department of	Prevention of Domestic Violence, Office for the
Executive Chamber	Probation & Correctional Alternatives, Div. of
Facilities Development Corporation	Public Employment Relations Board
Foundation for Science, Tech. & Innovation	Public Service, Department of
General Services, Office of	Quality of Care & Advocacy for Persons with
Health, Department of	Disabilities
Higher Education Services Corporation	Racing and Wagering Board, State
Hornellsville Sewer Authority	Real Property Services, Office of
Housing and Community Renewal, Division of	Regulatory Reform, Governor's Office of
Housing Finance Agency	Roosevelt Island Operating Corporation
Hudson River Park Trust	Schenectady Metroplex Development Authority
Human Rights, Division of	State Insurance Fund
Industrial Exhibit Authority	State Police, Division of
Inspector General, Office of the State	State University Construction Fund
Insurance Department	State University of New York

State, Department of
Staten Island Rapid Transit Operating Authority
Tax Appeals, Division of
Taxation and Finance, Department of
Technology, Office for
Temporary and Disability Assistance, Office of
Thruway Authority
Transportation, Department of
Upper Mohawk Valley Memorial Auditorium
Upper Mohawk Valley Regional Water Board
Upper Mohawk Valley Reg. Water Finance
Auth.
Empire State Development Corporation
Veterans' Affairs, Division of

Welfare Inspector General, Office of
Workers' Compensation Board
City University Construction Fund*
Lake George Park Commission*
Long Island Rail Road Company*
Mental Hygiene, Department of*
Metro-North Railroad Company*
MTA Bridges and Tunnels*
MTA Long Island Bus*
MTA New York City Transit Authority*
NYS Athletic Commission*
NYS Tug Hill Commission*
Triborough Bridge and Tunnel Authority*

*Reports through Parent Agency

Appendix C—Glossary

Aggregation, aggregated: Refers to the practice of combining smaller groups into larger groups. In the present context this term is typically used in reference to the presentation of utilization, availability, or related statistics according to industry. For example, statistics presented for the “Construction” sector as a whole are more aggregated than separate statistics for “Building Construction,” “Heavy Construction,” and Special Trades Construction” industries. See also “Disaggregation, disaggregated.”

Anecdotal evidence: Qualitative data regarding business owners’ accounts of experiences with disparate treatment and other barriers to business success.

Availability: A term of art in disparity studies that refers to the percentage of a given population of businesses owned by one or more groups of interest. For example, Table A indicates that M/WBE availability in Construction is 22.74 percent, indicating our estimate that 22.74 percent of all the construction establishments in the State’s relevant market area are owned by minorities or women. *See also* Utilization, Disparity Ratio.

Baseline Business Universe: The underlying population of business establishments that is used in an availability analysis. The denominator in a M/WBE availability measure.

Capacity: This term has no single definition. See Chapter II for an extended discussion of this concept and its role in disparity studies.

CMSA: Consolidated Metropolitan Statistical Area. As defined by the federal Office of Management and Budget, an urban area that has a total population of one million or more and has separate component areas, known as “Primary Metropolitan Statistical Areas” (“PMSA”) meeting statistical criteria and supported by local opinion. The New York-Northern New Jersey-Long Island CMSA, for example, contains the following PMSAs: Bergen-Passaic, NJ PMSA; Bridgeport, CT PMSA; Danbury, CT PMSA; Dutchess County, NY PMSA; Jersey City, NJ PMSA; Middlesex-Somerset-Hunterdon, NJ PMSA; Monmouth-Ocean, NJ PMSA; Nassau-Suffolk, NY PMSA; New Haven-Meriden, CT PMSA; New York, NY PMSA; Newark, NJ PMSA; Newburgh, NY PMSA; Stamford-Norwalk, CT PMSA; Trenton, NJ PMSA; and Waterbury, CT PMSA.

Constitutional significance or substantive significance: An indication of the how large or small a given disparity is. Under the EEOC’s “four-fifths” rule, a disparity ratio is substantively significant if it is 0.8 or less on a scale of 0 to 1 or 80 or less on a scale of 1 to 100.

De novo: “Anew.” A *de novo* review is a completely new review of evidence held in a higher or appellate court as if the original trial court’s review had never taken place.

Decennial: Refers to the census conducted every decade by the U.S. Census Bureau. The last decennial census was conducted in 2000. The next is currently underway as of this writing (in 2010).

Demand-side: Refers to activity on the demand-side of an economic market. For example, when State agencies hire contractors or vendors they are creating market demand. *See also* “Supply-side.”

Dependent variable: In a regression analysis, a variable whose value is postulated to be influenced by one or more other, “independent” or “exogenous” or “explanatory,” variables. For example, in business owner earnings regressions, business owner earnings is the dependent variable, and other variables, such as industry, geographic location, or age are the explanatory variables. *See also* “Independent variable,” “Exogenous variable.”

Disaggregation, disaggregated: Refers to the practice of splitting larger groups into smaller groups. In the present context this term is typically used in reference to the presentation of utilization, availability, or related statistics according to industry. For example, statistics presented for “Building Construction,” “Heavy Construction,” and “Special Trades Construction” industries are more disaggregated than statistics for the “Construction” sector as a whole.

Disparate impact: A synonym for “disparity,” often used in the employment discrimination litigation context. A disparate impact occurs when a “good” outcome for a given group occurs significantly less often than expected given that group’s relative size, or when a “bad” outcome occurs significantly more often than expected.

Disparity ratio: A measure derived from dividing utilization by availability and multiplying the result by 100. A disparity ratio of less than 100 indicates that utilization is less than availability. A disparity ratio of 80 or less can be taken as evidence of disparate impact. *See also* Availability, Constitutional Significance, Utilization.

Econometrics, econometrically: Econometrics is the field of economics that concerns itself with the application of statistical inference to the empirical measurement of relationships postulated by economic theory. *See also* “Regression.”

Endogenous variable: A variable that is correlated with the residual in a regression analysis or equation. Endogenous variables should not be used in statistical tests for the presence of disparities. *See also* “Exogenous variable.”

Exogenous variable: A variable that is uncorrelated with the residual in a regression analysis or equation. Exogenous variables are appropriate for use in statistical tests for the presence of disparities. *See also* “Endogenous variable,” “Independent variable,” “Dependent variable.”

SFY: State Fiscal Year. The State Fiscal Year runs from April 1 through March 31.

First-tier subcontractors: Subcontractors or suppliers hired directly by the prime contractor.

Independent variable: In a regression analysis, one or more variables that are postulated to influence or explain the value of another, “dependent” variable. For example, in business owner earnings regressions, business owner earnings is the dependent variable, and other variables, such as industry, geographic location, or age are the independent or explanatory variables. *See also* “Dependent variable,” “Exogenous variable.”

MBE: Minority-Owned Business Enterprise. A business establishment that is 51% or more owned and controlled by racial or ethnic minorities (*i.e.* African Americans, Hispanics, Asians or Pacific Islanders, or Native Americans).

Mean: A term of art in statistics, synonymous in this context with the arithmetic average. For example, the mean value of the series 1, 1, 2, 2, 2, 4, 5 is 2.43. This is derived by calculating the sum of all the values in the series (*i.e.* 17) and dividing that sum by the number of elements in the series (*i.e.* 7).

Median: A term of art in statistics, meaning the middle value of a series of numbers. For example, the median value of the series 1, 1, 2, 2, 4, 5 is 2.

Microdata or micro-level data: Quantitative data rendered at the level of the individual person or business, as opposed to data rendered for groups or aggregates of individuals or businesses. For example, Dun and Bradstreet provides micro-level data on business establishments. The Census Bureau's *Survey of Business Owners*, provides grouped or aggregated data on businesses.

Misclassification: In the present context, this term refers to a situation when a listing or directory of minority-owned or women-owned firms has incorrectly classified a firm's race or gender status. For example, when a firm listed as Hispanic-owned is actually African-American owned, or when a firm listed as White female-owned is actually White male-owned. *See also* "Nonclassification."

NAICS: North American Industry Classification System. The standard system for classifying industry-based data in the U.S. Superseded the Standard Industrial Classification (SIC) System in 1997. *See also* "SIC."

Nonclassification: In the present context, this term refers to a type of misclassification when a listing or directory has not identified firms as minority-owned or women-owned when, in fact, they are. *See* "Misclassification."

PUMS: Public Use Microdata Sample. Both the decennial census and the American Community Survey publish PUMS products.

p-value: A standard measure used to represent the level of statistical significance. It states the numerical probability that the stated relationship is due to chance alone. For example, a p-value of 0.05 or 5% indicates that the chance a given statistical difference is due purely to chance is 1-in-20. *See also* "Statistical Significance."

Regression, multiple regression, multivariate regression: A type of statistical analysis which examines the correlation between two variables ("regression") or three or more variables ("multiple regression" or "multivariate regression") in a mathematical model by determining the line of best fit through a series of data points. Econometric research typically employs regression analysis. *See also* "Econometrics."

SBO: The Census Bureau's *Survey of Business Owners* statistical data series. Part of the five-year *Economic Census* series.

Setaside, setasides: A contracting practice where certain contracts or classes of contracts are reserved for competitive bidding exclusively among a given subset of contractors, for example minority-owned and women-owned contractors.

SIC: Standard Industrial Classification System. Prior to 1997, the standard system for classifying industry-based data in the U.S. Superseded by the North American Industry Classification System (NAICS). *See also* “NAICS.”

Statistical significance: A statistical outcome or result that is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone. *See also* “p-value.”

Stratified: In the present context, this refers to a statistical practice where random samples are drawn within different categories or “strata” such as time period, industry sector, or DBE status.

Substantive significance or constitutional significance: An indication of the how large or small a given disparity is. Under the EEOC’s “four-fifths” rule, a disparity ratio is substantively significant if it is 0.8 or less on a scale of 0 to 1.

Supply-side: Refers to activity on the supply-side of an economic market. For example, when new businesses are formed, other things equal, the supply of contractors to the market is increased. *See also* “Demand-side.”

t-test, t-statistic, t distribution: Often employed in disparity studies to determine the statistical significance of a particular disparity statistic. A t-test is a statistical hypothesis test based on a test statistic whose sampling distribution is a t-distribution. Various t-tests, strictly speaking, are aimed at testing hypotheses about populations with normal probability distributions. However, statistical research has shown that t-tests often provide quite adequate results for non-normally distributed populations as well.

Two-tailed (or two-sided) statistical test: A “two-tailed” test means that one is testing the hypothesis that two values, say u (utilization) and a (availability), are equal against the alternate hypothesis that u is not equal to a . In contrast, a one-sided test means that you are testing the hypothesis that u and a are equal against the alternate hypothesis u is not equal to a in only one direction. That is, that it is either larger than a or smaller than a .

Utilization: A term of art in disparity studies that refers to the percentage of a given amount of contracting and/or procurement dollars that is awarded or paid to businesses owned by one or more groups of interest. For example, Table B indicates that M/WBE utilization in Construction is 12.39 percent, indicating our estimate that 12.39 percent of the \$7.9B of construction spending in our sample (or roughly \$979M) was awarded to minorities or women. *See also* Availability, Disparity Ratio.

WBE: Women-Owned Business Enterprise: A business establishment that is 51% or more owned and controlled by non-minority women.



NERA Economic Consulting
1006 East 39th St.
Austin, Texas 78751
Tel: +1 512 371 8995
Fax: +1 512 371 9612
www.nera.com